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CALIFORNIA DESERT

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SOCIAL INDICATORS FOR THE CALIFORNIA DESERT

March 1979

Final Working Paper

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EXECUTIVE SUMMARY

The results of a study to develop social indicators for the California Desert are presented in this report. The California Desert includes Imperial County and portions of six southern California counties; Los Angeles, Riverside, San Bernadino, San Diego, Kern, and Inyo.

Thirty two social indicators were selected to provide demographic, health care and public safety information. Pre-existing data sources were used for statistical comparison. However, because most of the population in each of the six border counties does not live within that area defined as the Desert, standard statistical reports do not identify social indicators for the Desert. Standard reports are inevitably skewed towards population centers; in this case the portions of each county external to the Desert. In this study, SRI International disaggregated county statistics to compare indicators for the Desert with the Coast, and with the State of California as a whole. Variations among the 14 BLM market areas within the Desert were also determined.

Many of the indicators developed showed similar population characteristics for the Desert and the Coast. Age and ethnic distributions were within a few percentage points, although the Coast showed a slightly older population with slightly more black and slightly less Spanish American minorities. The overall growth rate for the decade between 1960 and 1970 was the same, but during the 1970s the growth rate on the Coast slowed to half that of the desert. The income distribution for the Coast shows more families in the upper brackets than are found in the Desert, which has a much heavier concentration of families below the poverty line. In addition, the Desert has a heavier concentration of blue-collar workers than the Coast.

Indicators for health and public safety were also developed for the Desert as separate from the Coast. The Desert generally has higher health expenditures and fewer health care facilities per capita than the

Coast. In addition, the ratio of doctors and dentists to the population is considerably less favorable in the Desert than on the Coast. Crime rates in the Desert, although rising steadily, are still lower than the crime rates found on the Coast. In addition, less is spent for law enforcement in the Desert than on the Coast.

Considerable demographic variations were found among the various regions within the Desert, although most of the more populous areas were close to desert and coastal norms. The following examples illustrate this point.

- Population Growth occurred at a rate of 60% over a ten-year period in Market Area 11, while Market Area 10 lost population at a rate of -6%.
- Ethnicity varies among the different regions, with Area 9 showing a minority population of 9% while Area 14 has a minority population of 54%.
- Age distributions vary widely; some extremes are found in Areas 2, 4, 5, and 14. In Area 4, 60% of the population is between 18 and 34, and only 0.6% was over 55. In Area 5, 50% of the population was over 55. In Area 14, 42% of the population was less than 18.
- Occupations of desert residents are predominantly blue-collar, but there are striking differences among the market areas. Area 2, for example, has 79% blue-collar workers while Area 4 has only 30% blue-collar workers.
- Income distributions also vary widely. For example, in Area 5 over 50% of the population fell below the poverty level (less than \$5,000 annual income) in 1970, while in Area 2 only 5% of the population were in this category.
- Stability of the population (families living in the same house for five years or more) is another variable. In Area 4 the stability factor was only 2.7%, while Area 5 had a factor of 67.4%.

This report does not attempt to analyze or draw conclusions from the data. It discusses salient statistics for each BLM market area within the Desert and compares major population characteristics of the market areas with the Desert as a whole, the Southern California Coast, and the State of California. Together, the discussion and overall comparison provide a unique picture of social variations in a little known area.

I INTRODUCTION

This report presents the results of an assignment to develop separate social statistics, generally called social indicators, for the California Desert and several comparative regions.* The Planning Unit of the Bureau of Land Management (BLM) in Riverside contracted with SRI International to perform this task (No. YA510-Ph8-48 under Contract YA512-CT7-44). The Task Order agreement specified that all indicators should be based on secondary data; that is, data already compiled in a summary document, such as the census, special studies and automated data files. Thus, SRI did not develop any original statistics, but used statistics that had already been compiled. Sources of the information used by SRI in this report are presented in Appendix A, and the formulas used to manipulate the data into different formats are presented in Appendix B.

Numerous data sources were analyzed, and those selected had the following characteristics in common.

- Comparable information was available for most of the comparative regions. This served as a control on the data, making direct comparisons more meaningful.
- The data source was published regularly and easily obtained. This ensures that the BLM can systematically update the social indicators without undue expense.
- The limitations of the data in each source were defined, so that changes in the data from one publication to the next can be identified. For example, the Census Bureau occasionally changes the definitions and formats of information presented in different categories; these changes must be defined.

* Comparative regions include the Southern California Coast, California; Clark County, Nevada; Mohave County, Arizona; and Yuma County, Arizona.

Separating Desert from Non-Desert Data

No attempt was made to collect information from local sources, since this information could not be classified as secondary data, and would have greatly increased the time and funds required. In addition, the different recording and reporting standards of local governments preclude any direct comparison without extensive reanalysis of the sources. Such an analysis was beyond the scope of this study.

The California Desert (shown in Figure 1) includes all of Imperial County and portions of Los Angeles, Riverside, San Bernardino, San Diego, Kern, and Inyo counties. Because the Desert boundaries do not correspond to any standard reporting unit (such as cities, counties, or census tracts), and since the county is the largest local reporting unit, it was necessary to disaggregate the statistics for each of the counties on the border of the Desert into Desert/non-desert information.

The major comparative region presented in this report is the coastal region (called the Coast). The Coast includes the portion of each border county that falls outside of the desert and inside of the metropolitan areas of Southern California. For example, the section of Los Angeles County which is external to the Desert was aggregated into the comparative information for the Coast. The Coast also includes Orange and Ventura Counties. It excludes non-desert portions of Kern and Inyo since these counties are not part of the metropolitan area.

Originally, it was hypothesized that comparisons with counties in Arizona and Nevada would be meaningful as well, and this information was developed. However, direct comparisons were less helpful than originally anticipated and this data is shown only in Appendices C-G. Information for the State of California as a whole was also developed (where applicable), and is also presented in the appendices.

The BLM Market Areas and Data Difficulties

Within the California Desert, the BLM has defined 14 separate planning units called market areas (Figure 1). These market areas

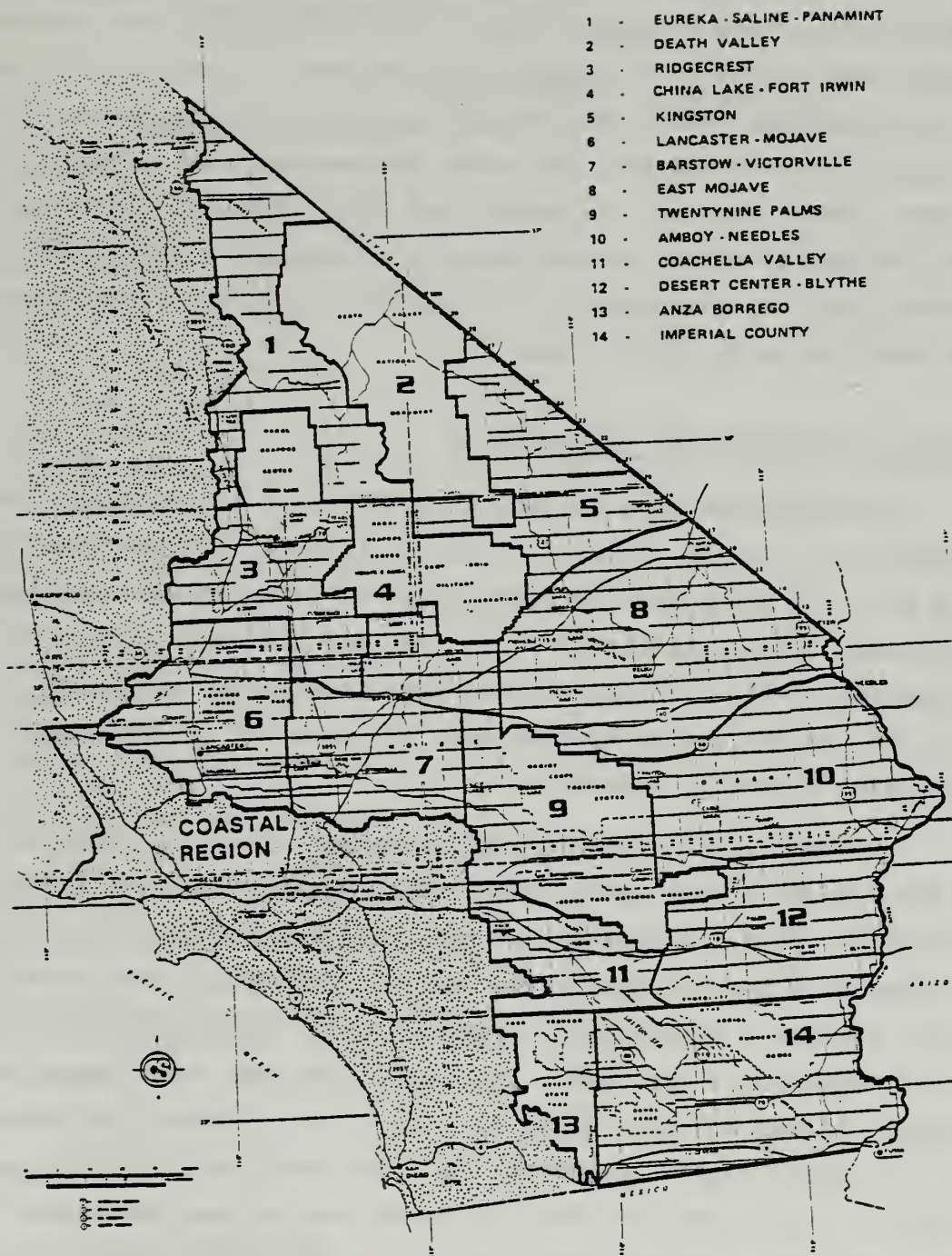


FIGURE 1 THE CALIFORNIA DESERT MARKET AREAS AND THE COASTAL REGION

represent variations in the demographic and socio-economic life within the desert. A major study task was to separate the statistics for the desert into these 14 market areas. This distinction was meaningful in some cases, but not in others. For instance, certain of the indicators, such as housing and income, could logically be allocated according to population distributions, but other indicators, such as public expenditures, cannot logically be associated with population distributions. The pattern of public expenditures is determined individually by the county and city governments for their entire jurisdiction rather than for smaller units within them.

Types of Data Used in the Analyses

Time sequence data was collected for each of the thirty two (32) indicators shown in Table 1. These indicators had been identified by BLM staff as being most informative about conditions in the desert. Information was collected for at least two different years. In some instances, data for three or more time periods was available. All of the time series and background data is presented in Appendices C-G according to social indicator.

The main report contains two sections. The first section presents a discussion of each market area and focuses on the most reliable indicators. These indicators can be identified in Table I as those presented by market area in the report. The second section of the report contains a discussion of several other important indicators which are presented for the Coast, the Desert, and one other comparative region. These indicators can be identified in Table 1 as those presented by the Desert Region in the report. The remaining indicators are discussed in the appendices because there were no significant variations among regions. The BLM staff identified those indicators presented in the main report, and those presented in the appendices.

Table 1

TYPES OF DATA OBTAINED FOR ANALYSIS

Indicator	Presented By		Discussed In	
	Market Area	Desert Region	Report	Appendix
1. Rate of population change, 1960-70	X	X	X	
2. Rate of population change, 1970-77*	X	X	X	
3. Ethnic distribution	X	X	X	
4. Age distribution	X	X	X	
5. Occupation	X	X	X	
6. Income	X	X	X	
7. Percent population on welfare	X	X	X	
8. Single/multiple units	X	X	X	
9. Owned/rented/vacant	X	X	X	
10. Population stability†	X	X	X	
11. Median income	X	X		X
12. Per capita tax revenue		X		X
13. Per capita amount received from state and federal sources		X		X
14. Median housing values/rents	X	X		X
15. Percent of school age children	X	X	X	
16. Expenditures per school aged Child	X	X		X
17. Median education	X	X		X
18. Percent of eligible population registered to vote	X	X		X
19. Percent of registered voters that voted	X	X		X
20. Library expenditure		X		X
21. Infant deaths		X		X
22. Number of people per doctor		X		X
23. Number of people per dentist		X		X
24. Distribution of hospital beds		X		X
25. Distribution of emergency rooms	X			
26. Per capita health expenditures		X		X
27. Homicide rate		X	X	
28. Robbery rate		X	X	
29. Assault rate		X	X	
30. Burglary rate		X	X	
31. Law enforcement expenditures		X		X
32. Fire expenditures		X		X

* Adjusted to 10 year rate.

† Percent of population living in same house 5+ years.

Formulas and Methodology

The formulas used to develop the 32 indicators, and the assumptions that were necessary, are presented in Appendix B. This appendix places the results in perspective, and helps the reader to avoid unwarranted assumptions.

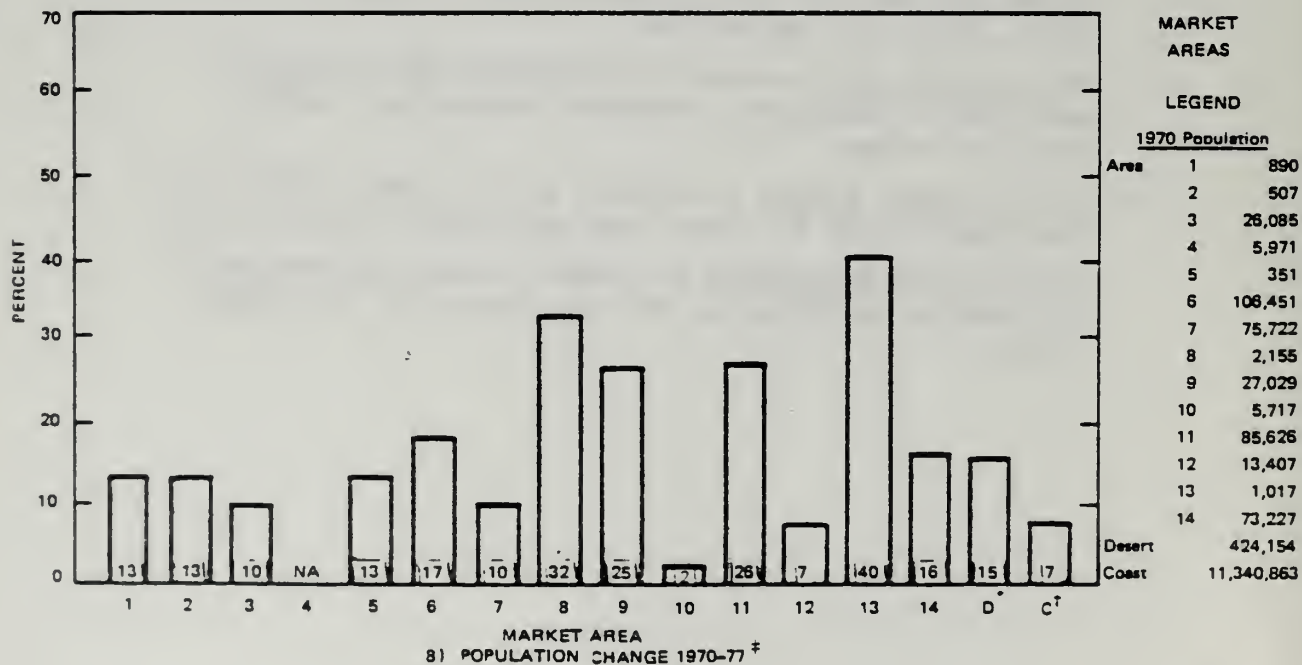
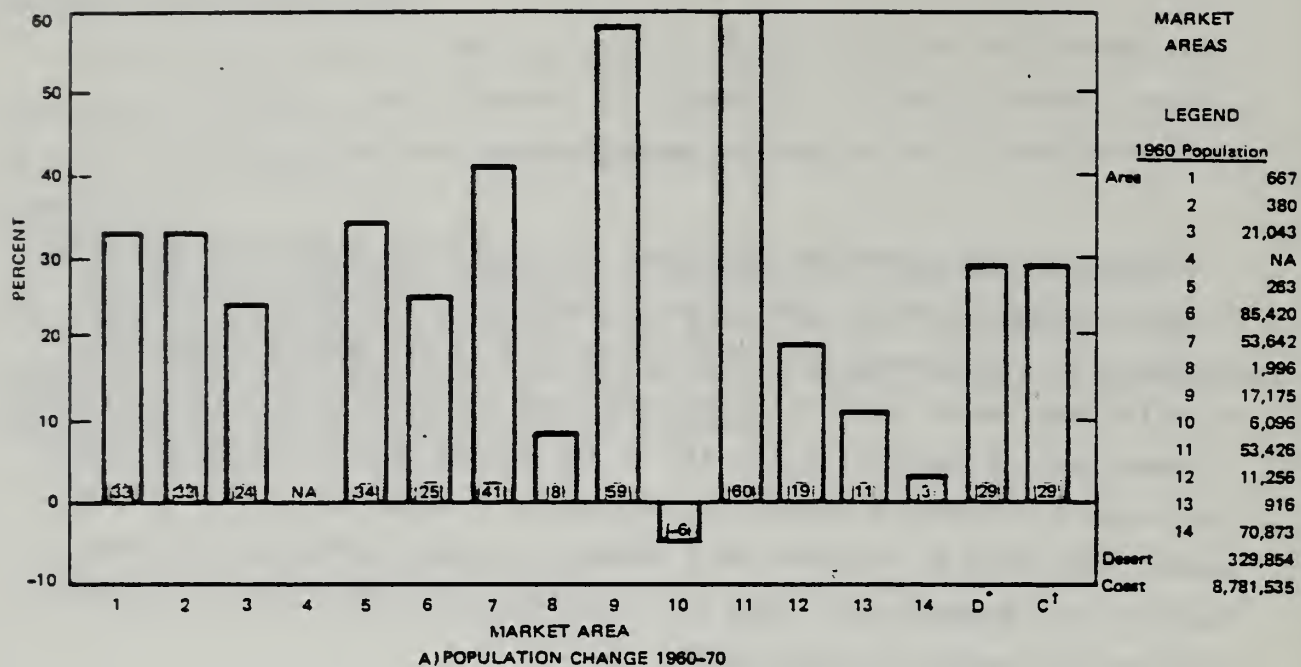
No effort is made to interpret or extrapolate from the indicators. This report is designed to present base data, not to hypothesize. BLM planning staff felt that the statistics should stand largely by themselves. Consequently, text is kept to a bare minimum.

II THE MARKET AREAS

This section presents a discussion of selected indicators according to market areas. Social indicators presented in this section provide insight into the demographic characteristics of the market areas, their relative degrees of wealth and poverty, and their housing characteristics. A comparison of indicators for all of the market areas, the Desert, and the Coast are shown in Figures 2 through 5. A brief discussion of each market area will be followed by a summary of the information for that region; each summary will show the indicators for that area as they compare to the Desert and the Coast.

The following definitions are used in this report.

- Blue-collar jobs are those in the crafts, machine operatives, the service sector (waitresses, busboys, etc.), heavy labor, and agriculture.
- White-collar jobs include professional and technical employment, management, business ownership, clerical work, and sales.
- Poverty level income is defined as an annual income of less than \$3,000 for 1960, and less than \$5,000 for 1970.
- Stability of population is judged by that percentage of the population living in the same house for five years or more.



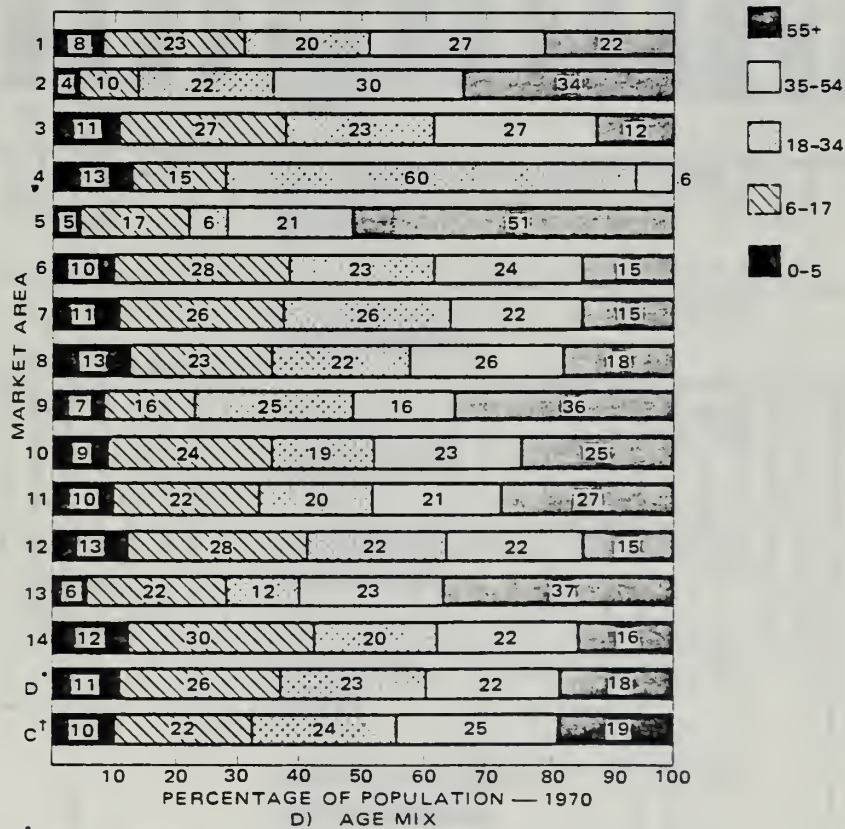
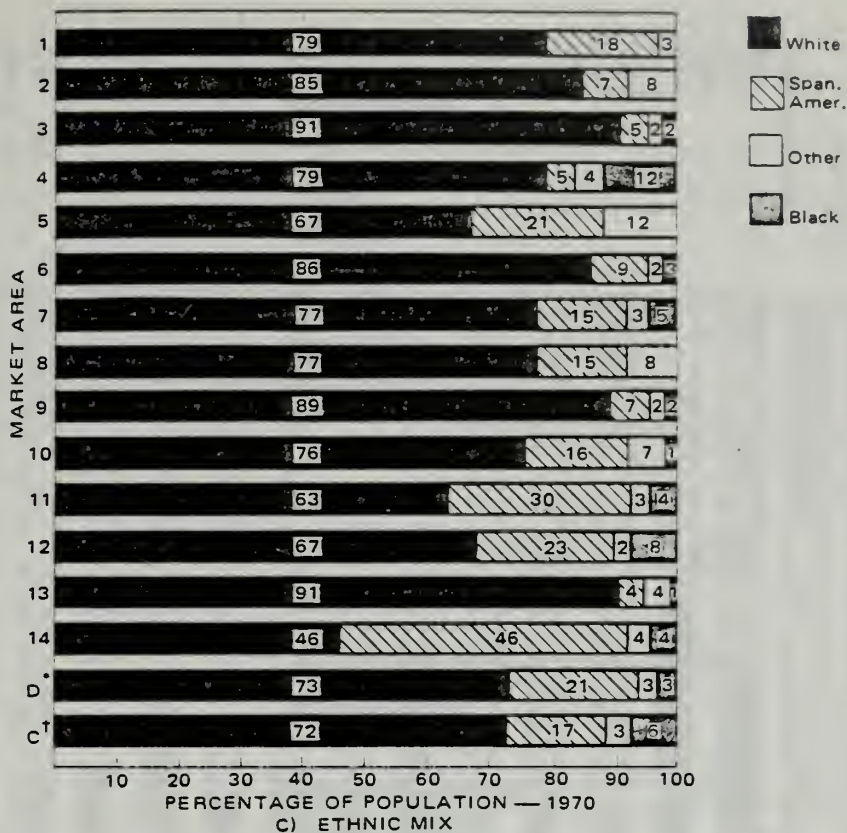
• Desert Average

† Coast Average

*Extended to Ten Years

FIGURE 2

DEMOGRAPHIC CHARACTERISTICS IN 1970



* Desert Average
† Coast Average

FIGURE 2 DEMOGRAPHIC CHARACTERISTICS IN 1970 (Concluded)

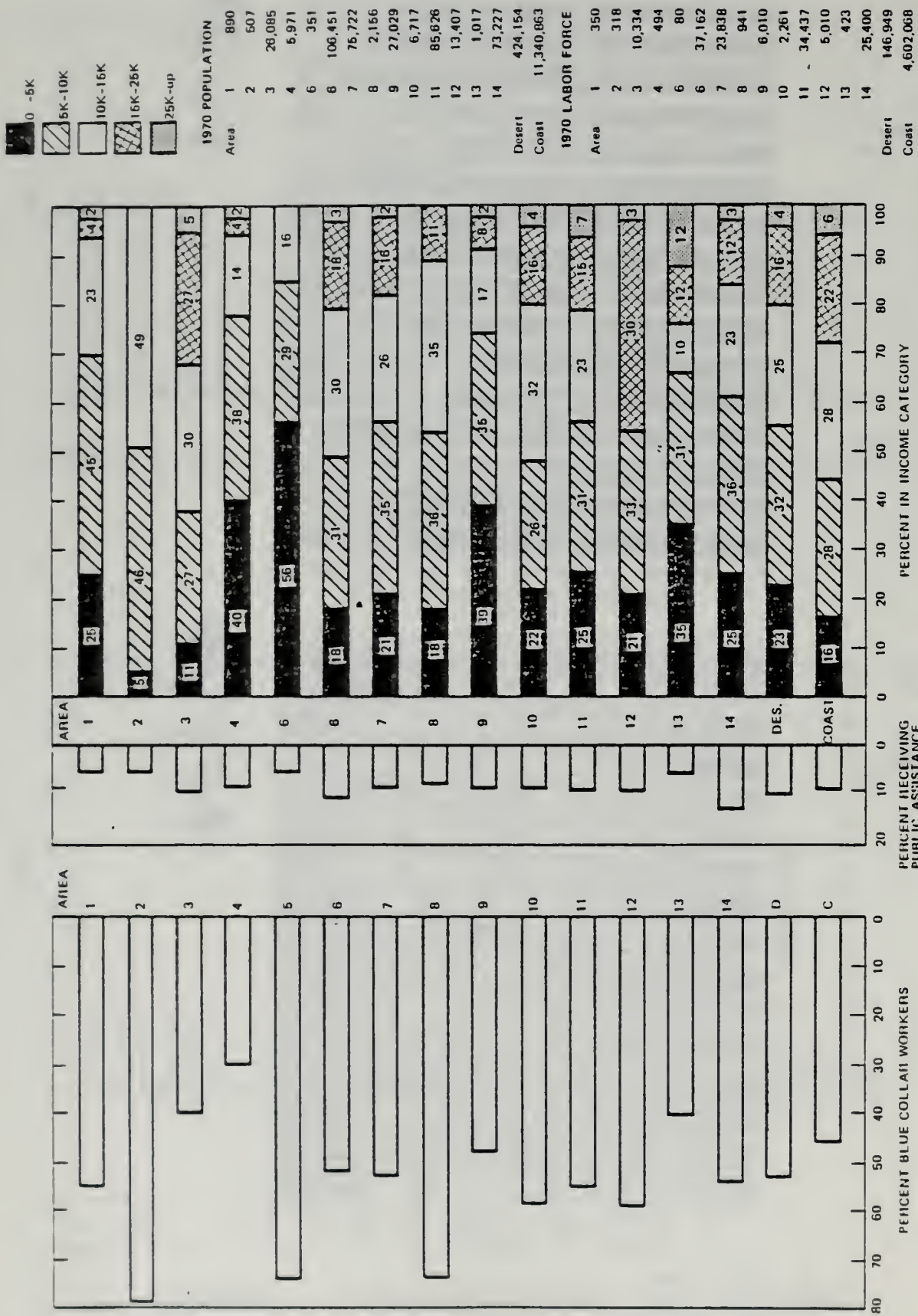


FIGURE 3 OCCUPATION AND INCOME DISTRIBUTION IN 1970

* N = total of all housing units in Miami-Dade

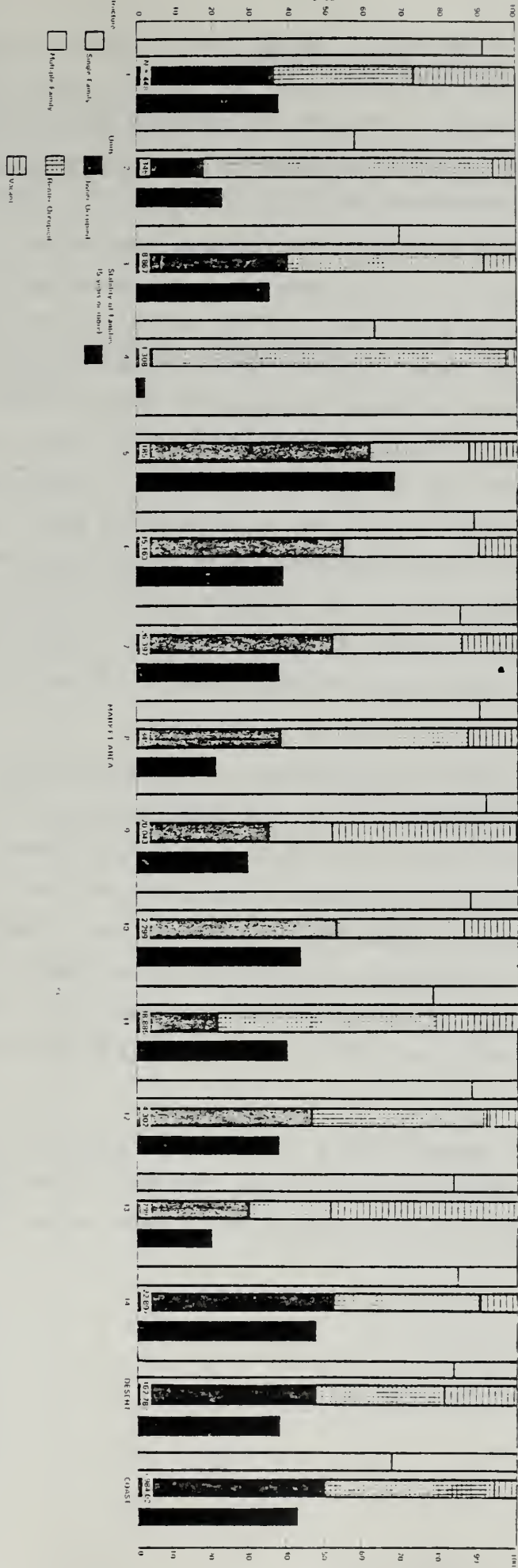


FIGURE 4 HOUSING CHARACTERISTICS IN 1970

Market Area 1: Eureka-Saline-Panamint

Market Area 1 contains a relatively small population compared to other areas in the Desert. Its population was relatively poor in 1970, and there was a high percentage of rental housing (see Figure 5).

Market Area 1 had the third smallest population in both 1960 and 1970. Projections for 1977 leave it in the same relative position. Its growth rate was 33% from 1960 to 1970, slightly higher than the Desert average for those years. In the 1970s its growth had slowed to 13%, slightly less than the Desert average and greater than the Coast average. The population in 1970 was predominantly (79%) White, with some Spanish-Americans. There were no Blacks. Most of the population fell between the ages of 18 and 54; i.e., adults of working age. School-aged children constituted 23% of the population, near the average for the Desert in that year. Roughly 22% of the population were fifty-five or older; this is slightly above the Desert norm of 18%. The work force was predominantly (55%) blue-collar; the remainder of the work force held white-collar jobs.

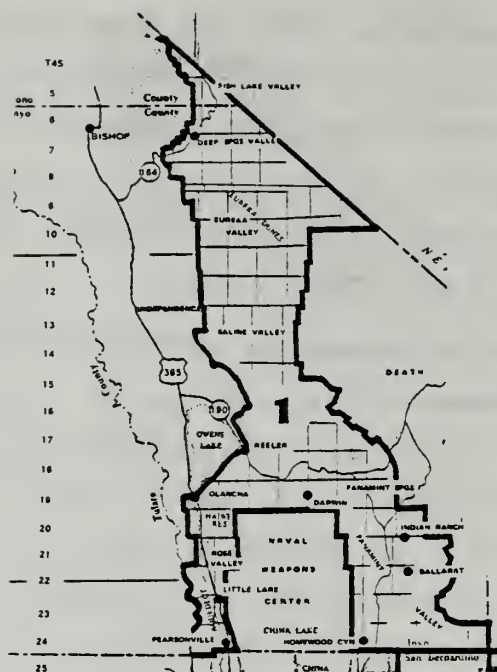
In 1970, most of the population (70%) earned less than \$10,000 annually. One quarter (25%) of the families earned less than \$5,000 annually, falling below the poverty level (see Appendix C). The bulk of the remaining population earned between \$10,000 and \$15,000 during that year. It may be concluded that the population in Market Area 1 is less affluent than the aggregate population of the Desert or the Coast. Although one quarter of the population in Market Area 1 fell below the 1970 poverty level, only 5% of the total population received public assistance.*

Housing in Market Area 1 was characterized by a relatively high percentage of single unit dwellings compared to the Coast or the Desert as a whole. Most of the occupied units were rented, and a substantial

* Adjusted from 1972 figures.

percentage were vacant. This is in contrast to the pattern found on the Coast and in the Desert. Both the Desert and the Coast showed a dominant proportion of owner occupied dwellings in the same year (1970), with fairly low vacancy rates. The population in Market Area 1 was as stable as the population in the Desert as a whole (less than one percentage point difference). The Coast showed a higher stability factor than both the Desert and Market Area 1.

Figure 5 presents the social indicators for Area 1, compared with the Coast and the Desert.



INDICATOR	REGION		
	MARKET AREA 1	DESERT	COAST
POPULATION — 1960	667	329,854	8,781,535
POPULATION — 1970	890	424,154	11,340,863
POPULATION — 1977 (Est.)	1,008	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.1	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,976	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	33%	29	29
POPULATION CHANGE (%) 1970 TO 1977	13	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	79	73	72
b. SPANISH-AMERICAN	18	21	17
c. OTHER	3	3	3
d. BLACK	—	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	8	11	10
b. 6-17 YEARS	23	26	22
c. 18-34 YEARS	20	23	24
d. 35-54 YEARS	27	22	25
e. 55+ YEARS	22	18	19
BLUE-COLLAR WORKERS — 1970 (%)	55	54	46
PUBLIC ASSISTANCE — 1972 (%)	5.5	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	25	23	16
b. \$5,000-\$10,000	45	32	28
c. \$10,000-\$15,000	23	25	28
d. \$15,000-\$25,000	4	16	22
e. \$25,000-UP	2	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	91.6	84.1	67.6
b. OWNER OCCUPIED	35.5	47.5	51
c. RENTER OCCUPIED	37.1	33.5	43
d. VACANT	27.5	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	37.7	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 5 MARKET AREA 1: EUREKA-SALINE-PANAMINT

Market Area 2: Death Valley

Market Area 2 is dominated by Death Valley National Monument. It had the second smallest population within the Desert in 1970, and a high median age of 46. It also had the highest proportion of blue-collar workers within the Desert. Most of the population was White, and this Area had the lowest percentage of poor (see Figure 6).

The population in this area increased by 33% during the 1960's, with the rate of growth slowing to 13% during the 1970's. It has consistently maintained its position as the second smallest Market Area in terms of population.

The population in Market Area 2 was predominantly (85%) White, with 7% Spanish-Americans and 8% other. There were no Blacks reported in this Market Area in 1970. The percentage of Whites was considerably higher than the Desert or Coast averages, and the percentage of minorities was proportionally smaller. This market area had the fifth largest percentage of Whites in the Desert, exceeded only by Market Areas 3, 6, 9, and 13.

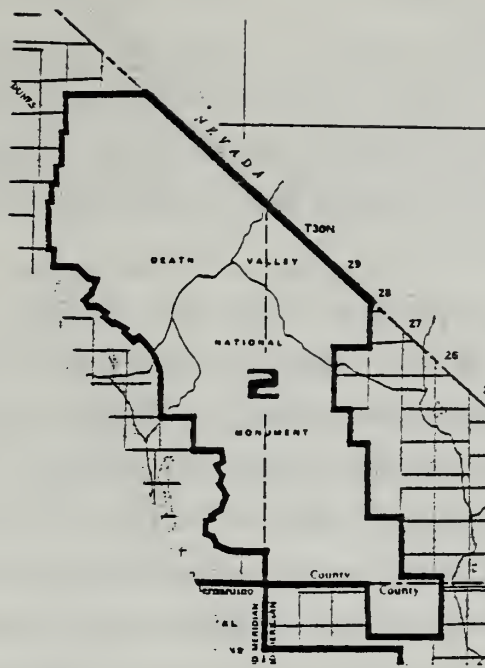
Market Area 2 had a relatively mature population, with a median age of 46. This should be compared to the Desert median of 26.7 and the Coast median of 27.9. Only 10% of the population was of school age, and less than 5% were infants. Since 34% of the population was older than 55, roughly 52% were between 18 and 54. This area had one of the highest percentages of adults (and lowest percentages of children) in the Desert.

Figure 3 shows that this Market Area had the highest percentage of blue-collar workers in the Desert (79%). This was considerably in excess of the Desert average (55%) and the Coast average (45%). The income distribution was commensurate with both type and level of employment; 95% of the population reported an annual income between \$5,000 and \$15,000. Only 5% of the population had an income less than \$5,000; all of these individuals apparently received public assistance.*

* Since 5% of the population made less than \$5,000, and 5% received public assistance, we must assume an overlap between these two groups.

Although this Market Area had no high incomes reported, it also lacked the low income families found in the Desert and on the Coast. It had the smallest percentage of population below the poverty level found in any of the market areas.

Figure 4 shows that Market Area 2 had the highest percentage of multiple family dwellings in the Desert, and that this percentage is higher than that of the Coast. Market Area 2 also had the highest percentage of rental housing; exceeding all other units within the Desert and the Coast. The vacancy rate in this Market Area was quite low for the Desert, only Market Area 4 had a lower figure. However, it was still slightly higher than that of the Coast. This Market Area had a relatively unstable population; 22% had lived in the same house since 1965. Only three other market areas were less stable; the population on the Coast and in the Desert as a whole was considerably more stable. This area may be considered highly transient compared to the other regions.



INDICATOR	REGION		
	MARKET AREA 2	DESERT	COAST
POPULATION — 1960	380	329,854	8,781,535
POPULATION — 1970	507	424,154	11,340,863
POPULATION — 1977 (Est.)	574	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.4	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,812	\$9,214	\$10,865
(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	33%	29	29
POPULATION CHANGE (%) 1970 TO 1977	13	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	85	73	72
b. SPANISH-AMERICAN	7	21	17
c. OTHER	8	3	3
d. BLACK	-	2	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	4	11	10
b. 6-17 YEARS	10	26	22
c. 18-34 YEARS	22	23	24
d. 35-54 YEARS	30	22	25
e. 55+ YEARS	34	18	19
BLUE-COLLAR WORKERS — 1970 (%)	79	54	46
PUBLIC ASSISTANCE — 1972 (%)	5.5	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	5	23	16
b. \$5,000-\$10,000	46	32	28
c. \$10,000-\$15,000	49	25	28
d. \$15,000-\$25,000	-	16	22
e. \$25,000-UP	-	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	57	84.1	67.6
b. OWNER OCCUPIED	17.1	47.5	51
c. RENTER OCCUPIED	68.4	33.5	43
d. VACANT	6.7	18.1	5
STABILITY OF FAMILIES — 1970 (%)	22.5	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 6 MARKET AREA 2: DEATH VALLEY

Market Area 3: Ridgecrest

Market Area 3 is dominated by China Lake Naval Weapons Center. It was one of the more populous areas in 1978, with a very small minority population. Most of the work force was white-collar and the Area had a large percentage of its population in high income brackets (see Figure 7).

The population of Market Area 3 was considerably larger than either Market Area 1 or 2, and at the same time showed a slower rate of growth. During the 1960s this area's population increased by 24%, but the rate slowed to 10% in the next decade (Figure 7). Area 3 had the fifth largest population within the Desert in 1960, and the sixth largest in 1970.*

This Market Area was 91% White; only Market Area 13 had a comparable percentage. The region had a small proportion of Blacks, as well as some Spanish-Americans and other minorities. However, it had considerably fewer representatives of any minority than the Desert or the Coast.

There was a relatively high proportion of children (6-17) and infants (0-5) in 1970. Together, these two groups comprised roughly 38% of the population. This was comparable to the Desert as a whole, and slightly above the Coast. The age distribution for Market Area 3 closely approximated the "norm" of the Desert and the Coast (i.e., shows a similar curve), except for a relatively low percentage of elderly.

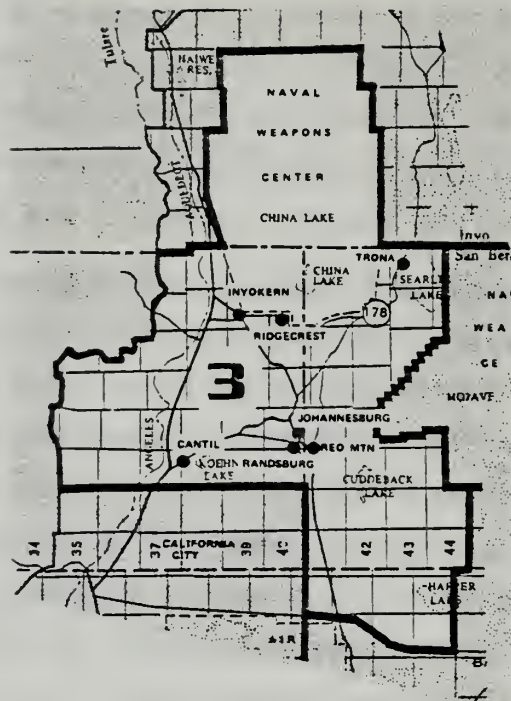
Market Area 3 had the second highest percentage of white-collar workers within the Desert (exceeded only by Area 4). Only 40% of its labor force was employed in blue-collar occupations compared to 54% in the Desert. The Coast, with less blue-collar workers than the Desert, still had 5% more than found in Area 3.

The income distribution for Area 3 reflected the high percentage of white collar workers. Area 3 had the largest percentage of population

* Between 1960 and 1970 Market Areas 3 and 9 changed their relative positions on population size. This is undoubtedly attributable to the extraordinary high growth rate of Market Area 9 during the crucial decade (57%).

in the higher income brackets; 32% of its families showed an annual income exceeding \$15,000. This was the wealthiest Market Area, according to this measure. Only 11% of Area 3's population was below the poverty line, and almost 10% received public assistance. This relationship was considerably better than that found in the Desert as a whole.

This Area had a relatively high proportion of multiple unit dwellings compared to the Desert. The percentage of multiple units was comparable to the Coast. Only Market Areas 2 and 4 had more multiple units. The percentage of rental units exceeded the percentage of units which were owner occupied, although the difference was less than that found in Area 2. Area 3 had a moderate vacancy rate, slightly more than the Coast and less than the Desert as a whole. Only Area 2 had lower vacancy rates. The population in this Market Area was relatively stable, with 35% living in the same dwelling for more than five years. In 1960 only 28% of the population in this area was stable.



INDICATOR	REGION		
	MARKET AREA 3	DESERT	COAST
POPULATION — 1960	21,043	329,854	8,781,535
POPULATION — 1970	26,085	424,154	11,340,863
POPULATION — 1977 (Est.)	28,782	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.5	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$11,639	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	24	29	29
POPULATION CHANGE (%) 1970 TO 1977	10	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	91	73	72
b. SPANISH-AMERICAN	5	21	17
c. OTHER	2	3	3
d. BLACK	2	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	11	11	10
b. 6-17 YEARS	27	26	22
c. 18-34 YEARS	23	23	24
d. 35-54 YEARS	27	22	25
e. 55+ YEARS	12	18	19
BLUE-COLLAR WORKERS — 1970 (%)	40	54	46
PUBLIC ASSISTANCE — 1972 (%)	9.6	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	11	23	16
b. \$5,000-\$10,000	27	32	28
c. \$10,000-\$15,000	30	25	28
d. \$15,000-\$25,000	27	16	22
e. \$25,000-UP	5	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	69.5	84.1	67.6
b. OWNER OCCUPIED	39.9	47.5	51
c. RENTER OCCUPIED	51.4	33.5	43
d. VACANT	8.6	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	34.8	38.3	42.8

* Percentage of families occupying same residence for 5 years or more

FIGURE 7 MARKET AREA 3: RIDGECREST

Market Area 4: China Lake-Fort Irwin

Market Area 4 is dominated by Fort Irwin and China Lake Naval Weapons Center; 88% of its population was military personnel. This Area showed a remarkably small percentage of residents over 55 years old; only 0.6% fell into this category. The Area also had a very high percentage of rental housing, and the least stable population in the Desert (see Figure 8).

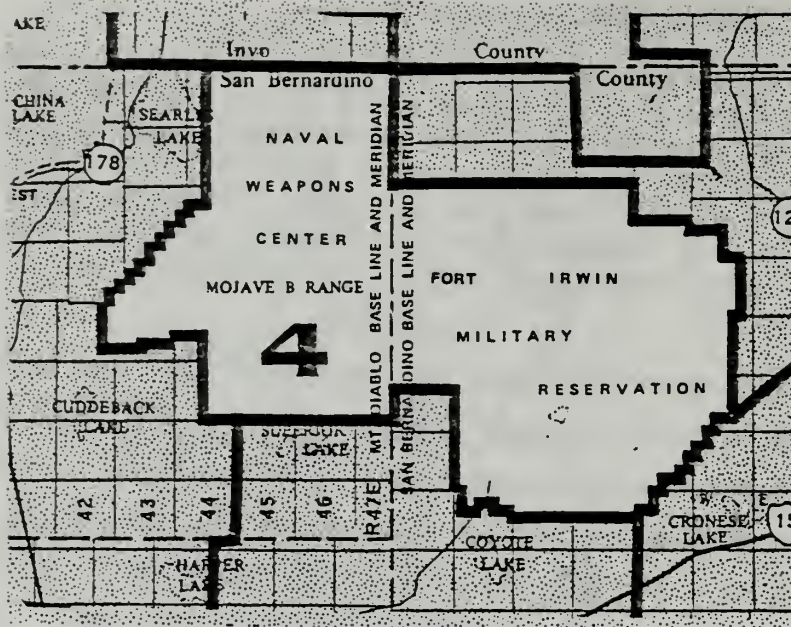
Population figures for 1960 were not available for this Area, but the population in 1970 is shown in Figure 8. Because the population in this Area is dominated by two military bases, changes are the result of alterations in military staffing. Consequently, no growth rates are presented. In 1970 the population was 79% White, and had the largest Black population of any market area (approximately 11%). The age distribution also reflects military presence, over 60% of the population was between 18 and 35 years old. Only 0.6% of the residents were older than 55. Area 4 was the only Desert unit with this age pattern.

Only 30% of the labor force^{*} in this area was classified as blue-collar; the lowest percentage of blue-collar workers in any of the market areas (Figure 3). Incomes were relatively low; 78% of the population earned less than \$10,000 annually.[†] A small group (14%) earned between \$10,000 and \$15,000, with 6% earning more than \$15,000. This was one of the poorest areas in the Desert.

Market Area 4 had the second highest percentage of multiple dwelling units in the Desert, exceeding the Coast. It also showed a very high percentage of renters (over 90%). Only 5% of the residents owned their own homes. The vacancy rate was the lowest in the Desert, and lower than that of the Coast. The stability factor was also the lowest for the Desert (around 2%). Market Area 4 was characterized by a young, transient, low income population in 1970.

^{*}Occupation figures do not include base personnel.

[†]Income figures do include base personnel.



INDICATOR	REGION		
	MARKET AREA 4	DESERT	COAST
POPULATION — 1960	NA	329,854	8,781,535
POPULATION — 1970	5,971	424,154	11,340,863
POPULATION — 1977 (Est.)	NA	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.5	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$6,067	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	NA	29	29
POPULATION CHANGE (%) 1970 TO 1977	NA	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	79	73	72
b. SPANISH-AMERICAN	21	21	17
c. OTHER	12	3	3
d. BLACK	-	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	13	11	10
b. 6-17 YEARS	15	26	22
c. 18-34 YEARS	60	23	24
d. 35-54 YEARS	11	22	25
e. 55+ YEARS	1	18	19
BLUE-COLLAR WORKERS — 1970 (%)	29	54	46
PUBLIC ASSISTANCE — 1972 (%)	8.8	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	40	23	16
b. \$5,000-\$10,000	38	32	28
c. \$10,000-\$15,000	14	25	28
d. \$15,000-\$25,000	4	16	22
e. \$25,000-UP	2	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	62.7	64.1	67.6
b. OWNER OCCUPIED	4.4	47.5	51
c. RENTER OCCUPIED	92.6	33.5	43
d. VACANT	3.0	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	2.7	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 8 MARKET AREA 4: CHINA LAKE-FORT IRWIN

Market Area 5: Kingston

Market Area 5 had the smallest population in 1970. It had a fairly low percentage of Whites, and over half the population was older than 55. There was much poverty, but the population was the most stable in the Desert. In addition, the Area had the highest percentage of owner occupied homes (see Figure 4 and 9).

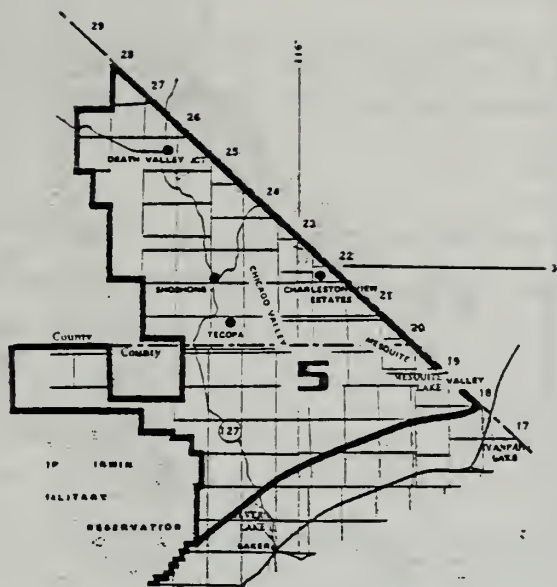
Although Market Area 5 grew at a rate of 34% during the 1960s, in 1970 it was still the smallest in terms of population. It is not likely that this situation will change, since its rate of growth during the 1970s is only 13%. This Area was one of four with less than 70% White population. It had a substantial percentage of Spanish-Americans but no Blacks. Approximately 12% of the population belonged to other minority groups.

The age distribution was different from both Desert and Coast norms. Over half the population (51%) was older than 55, and only 26% was between 18 and 54. This Market Area had a fairly low percentage of infants and children between 6 and 17 years of age; only Market Area 2 had less of its population in this age grouping.

Only 80 of the 350 residents were in the labor force during 1970. Almost 75% of these individuals were blue-collar workers. The income distribution reflected the high percentage of the population not in the labor force; 56% of the population reported an income of less than \$5,000 annually. No one reported an income greater than \$15,000. This Market Area had the highest percentage of its population below the poverty line in 1970. At the same time, only 5% of the residents received public assistance. This area also had the lowest median years of education in the Desert, at 8.8 years of school completed (see Appendix E). The Desert average was 12.2.

All of the housing was single family units; this was the only Market Area with no multiple dwellings in 1970. In addition, Market Area 5 had the largest percentage of owner occupied homes, with over 60% of the dwellings in this category. The vacancy rate was midway between that of the Coast and that of the Desert. This population was the most stable

in the Desert, with 67% of its residents living in the same house for over 5 years. It was one of two Desert areas with a population more stable than the Coast. This Area is characterized by an older, poor, yet stable population. It is more racially mixed than most of the Desert, and less educated.



INDICATOR	REGION		
	MARKET AREA 5	DESERT	COAST
POPULATION — 1960	263	329,854	8,781,535
POPULATION — 1970	351	424,154	11,340,863
POPULATION — 1977 (Est.)	398	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	8.8	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$4,500	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	34	29	29
POPULATION CHANGE (%) 1970 TO 1977	13	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	67	73	72
b. SPANISH-AMERICAN	21	21	17
c. OTHER	12	3	3
d. BLACK	-	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	5	11	10
b. 6-17 YEARS	17	26	22
c. 18-34 YEARS	6	23	24
d. 35-54 YEARS	21	22	25
e. 55+ YEARS	51	18	19
BLUE-COLLAR WORKERS — 1970 (%)	74	54	46
PUBLIC ASSISTANCE — 1972 (%)	5.5	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	56	23	16
b. \$5,000-\$10,000	29	32	28
c. \$10,000-\$15,000	15	25	28
d. \$15,000-\$25,000	-	16	22
e. \$25,000-UP	-	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	100	84.1	67.6
b. OWNER OCCUPIED	60.5	47.5	51
c. RENTER OCCUPIED	25.9	33.5	43
d. VACANT	13.5	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	67.4	38.3	42.3

* Percentage of families occupying same residence for 5 years or more.

FIGURE 9 MARKET AREA 5: KINGSTON

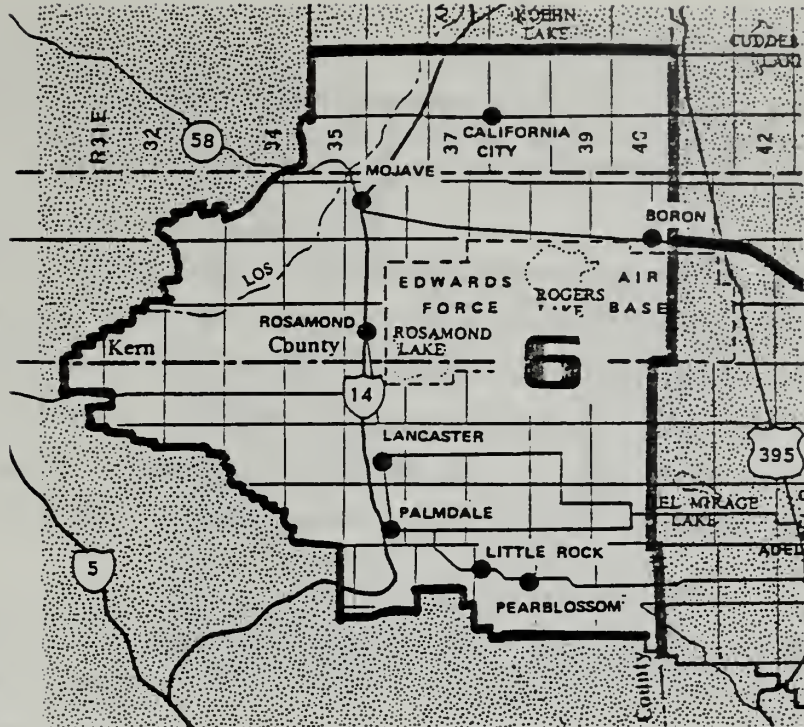
Market Area 6: Lancaster-Mohave

Market Area 6 had the largest population in the Desert. The second largest percentage of children. A relatively high percentage of the housing stock was owner occupied. The population was fairly stable (see Figure 10).

Market Area 6 had the largest population of any Desert area for both 1960 and 1970. Its growth slowed somewhat during the 1970s, but not enough to cause a shift in its relative position. The population in 1970 was 86% White, with the other 14% a mixture of Spanish-Americans, Blacks, and other minorities. The age distribution was heavily weighted towards children and infants; only Market Area 14 had more of its population in these age categories. Aside from the large percentage of children, the age distribution for this Market Area was quite close to the norm for the Desert and the Coast.

The occupation distribution for Market Area 6 (52% blue-collar) was almost exactly the same as the Desert average (54% blue-collar). The income distribution was also very close to that of the Desert and the Coast. The percentage of the population in each income bracket was within a few points of the Desert "norm."

Just over 10% of the housing stock was composed of multiple family dwellings. This was slightly less than the percentage of multiple family dwellings in the Desert or on the Coast. Over 50% of the housing was owner occupied; a larger percentage than that found on the Coast or in the Desert. The vacancy rate was 10%; higher than the Coast and lower than the Desert average. The stability factor was equivalent to that of the Desert as a whole, and less than that of the Coast. This Market Area conformed most closely to the Desert averages.



INDICATOR	REGION		
	MARKET AREA 6	DESERT	COAST
POPULATION — 1960	85,420	329,854	8,781,535
POPULATION — 1970	106,451	424,154	11,340,863
POPULATION — 1977 (Est.)	124,008	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.3	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$10,262	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	25	29	29
POPULATION CHANGE (%) 1970 TO 1977	15	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	86	73	72
b. SPANISH-AMERICAN	9	21	17
c. OTHER	2	3	3
d. BLACK	3	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	10	11	10
b. 6-17 YEARS	28	26	22
c. 18-34 YEARS	23	23	24
d. 35-54 YEARS	24	22	25
e. 55+ YEARS	15	18	19
BLUE-COLLAR WORKERS — 1970 (%)	52	54	46
PUBLIC ASSISTANCE — 1972 (%)	10.6	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	18	23	16
b. \$5,000-\$10,000	31	32	28
c. \$10,000-\$15,000	30	25	28
d. \$15,000-\$25,000	18	16	22
e. \$25,000-UP	3	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	89.1	84.1	67.6
b. OWNER OCCUPIED	54.0	47.5	51
c. RENTER OCCUPIED	35.9	33.5	43
d. VACANT	9.8	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	38.6	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 10 MARKET AREA 6: LANCASTER-MOJAVE

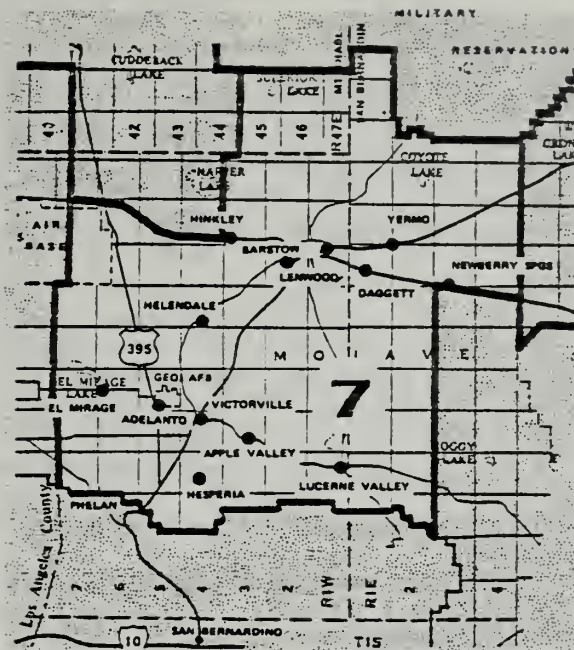
Market Area 7: Barstow-Victorville

Market Area 7 had the third largest population in the Desert in 1970. All of the indicators for this Area fell very close to the norm for the Desert (see Figure 11).

Market Area 7 had the third largest population among the Desert units in 1960 and 1970. Its growth rate during the 1960s was 44%, the third fastest rate of change within the Desert. After 1970, its growth slowed to a more moderate 10%. Although it was predominantly White (77%), Market Area 7 had 5% Blacks and 15% Spanish-Americans. Its age distribution was very close to that found in Market Area 6, and the Desert as a whole.

In Figure 11, it is apparent that the distribution of occupations was very close to that of the Desert. Blue-collar workers comprised 53% of the work force (the Desert figure is 54%). The income distribution was also very close to that of the Desert as a whole. Roughly 21% of the population fell below the poverty line, as compared to the Desert average of 23%. Both of these figures exceed the Coast average of 16%. Roughly 9% of the people in this Area received public assistance; this may be equated with the Desert average of 10%.

Housing in Market Area 7 (Figure 11) was also very close to the Desert norm, although there were some slight differences. Market Area 7 had a slightly higher proportion of owner occupied housing than the Desert, and a slightly lower vacancy rate. The proportion of rental units was almost the same. However, the population in this Market Area was less stable than the Desert or Coast.



INDICATOR	REGION		
	MARKET AREA 7	DESERT	COAST
POPULATION — 1960	53,642	329,854	8,781,535
POPULATION — 1970	75,722	424,154	11,340,863
POPULATION — 1977 (Est.)	83,290	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.3	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,138	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	41	29	29
POPULATION CHANGE (%) 1970 TO 1977	10	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	77	73	72
b. SPANISH-AMERICAN	15	21	17
c. OTHER	8	3	3
d. BLACK	-	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	11	11	10
b. 6-17 YEARS	26	26	22
c. 18-34 YEARS	26	23	24
d. 35-54 YEARS	22	22	25
e. 55+ YEARS	15	18	19
BLUE-COLLAR WORKERS — 1970 (%)	53	54	46
PUBLIC ASSISTANCE — 1972 (%)	8.8	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	21	23	16
b. \$5,000-\$10,000	35	32	28
c. \$10,000-\$15,000	26	25	28
d. \$15,000-\$25,000	16	16	22
e. \$25,000-UP	2	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	85.6	84.1	67.6
b. OWNER OCCUPIED	51.1	47.5	51
c. RENTER OCCUPIED	34.1	33.5	43
d. VACANT	14.7	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	34.0	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 11 MARKET AREA 7: BARSTOW-VICTORVILLE

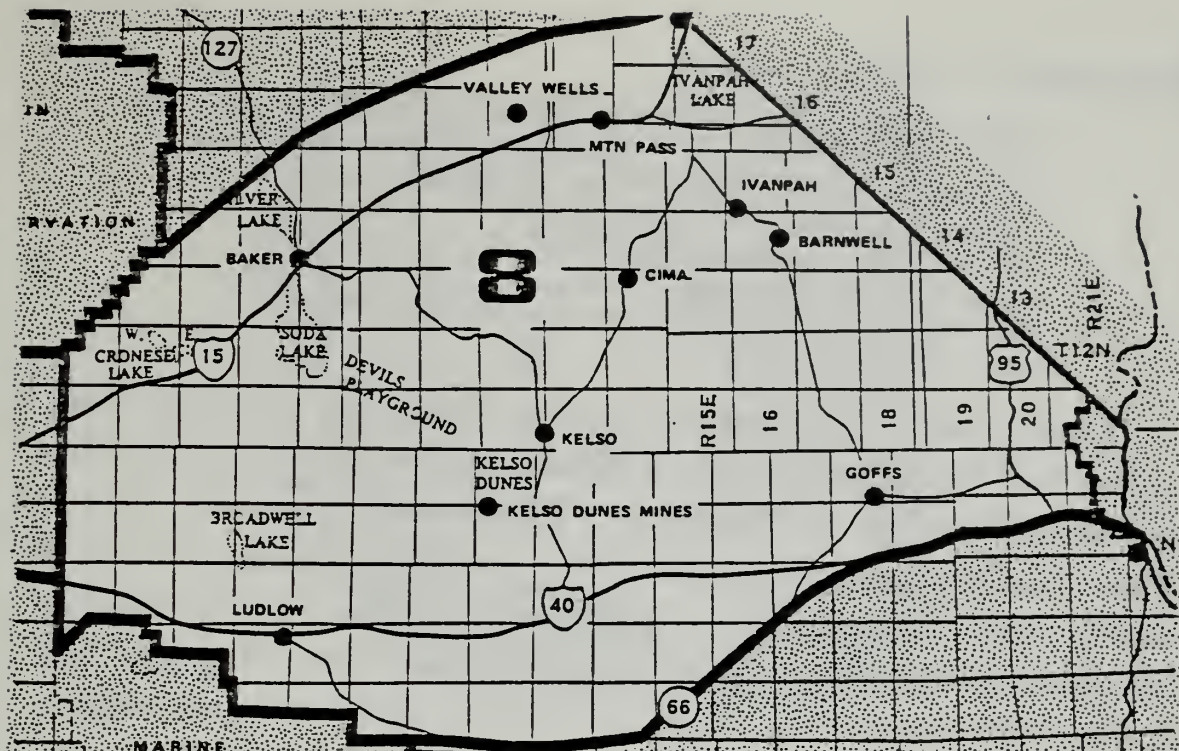
Market Area 8: East Mohave

Market Area 8 had a relatively small population in 1970, ranking 10th of the 14 areas. The labor force was predominantly blue-collar. Most of the housing was rental units, and the population was one of the least stable in the Desert (see Figure 12).

Market Area 8 had a low population in 1960, and its growth rate between 1960 and 1970 was a slow 8%. This was considerably below the Desert average of 29%. However, the growth rate during the 1970s was 32%, more than twice the Desert rate (15%) for the same period. By 1980 this Market Area may have gained sufficient population to shift its relative position. This area was predominately White (77%), with 15% Spanish-Americans, 8% others, and no Blacks. The age distribution was very close to that of the Desert as a whole.

A very high percentage of the work force was classified as blue-collar (almost 75%). This was considerably above the comparable figure for the Desert in 1970. Most families reported incomes between \$5,000 and \$15,000 per year, with only 18% of the population falling below the poverty level. This was lower than the Desert and slightly higher than the Coast. Only 11% of the families reported earning more than \$15,000 annually, as compared to 20% in the Desert and 28% on the Coast.

Market Area 8 had a relatively low (10%) percentage of multiple dwellings. However, in 1960 this area had no multiple dwellings. Area 8 was one five Market Areas that showed a preponderance of rental housing in 1970. It had a moderate vacancy rate, at the midpoint between the Coast rate and that of the Desert. The stability factor was very low; only Market Area 2 had a less stable population.



INDICATOR	REGION		
	MARKET AREA 8	DESERT	COAST
POPULATION — 1960	1,998	329,854	8,781,535
POPULATION — 1970	2,155	424,154	11,340,863
POPULATION — 1977 (Est.)	3,276	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	11.8	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,438	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	8	29	29
POPULATION CHANGE (%) 1970 TO 1977	32	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	77	73	72
b. SPANISH-AMERICAN	15	21	17
c. OTHER	8	3	3
d. BLACK	-	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	13	11	10
b. 6-17 YEARS	23	26	22
c. 18-34 YEARS	22	23	24
d. 35-54 YEARS	26	22	25
e. 55+ YEARS	18	18	19
BLUE-COLLAR WORKERS — 1970 (%)	75	54	46
PUBLIC ASSISTANCE — 1972 (%)	7.9	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	18	23	16
b. \$5,000-\$10,000	36	32	28
c. \$10,000-\$15,000	35	25	28
d. \$15,000-\$25,000	11	16	22
e. \$25,000-UP	-	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	90.4	84.1	67.6
b. OWNER OCCUPIED	37.3	47.5	51
c. RENTER OCCUPIED	49.5	33.5	43
d. VACANT	13.1	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	21.3	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 12 MARKET AREA 8: EAST MOHAVE

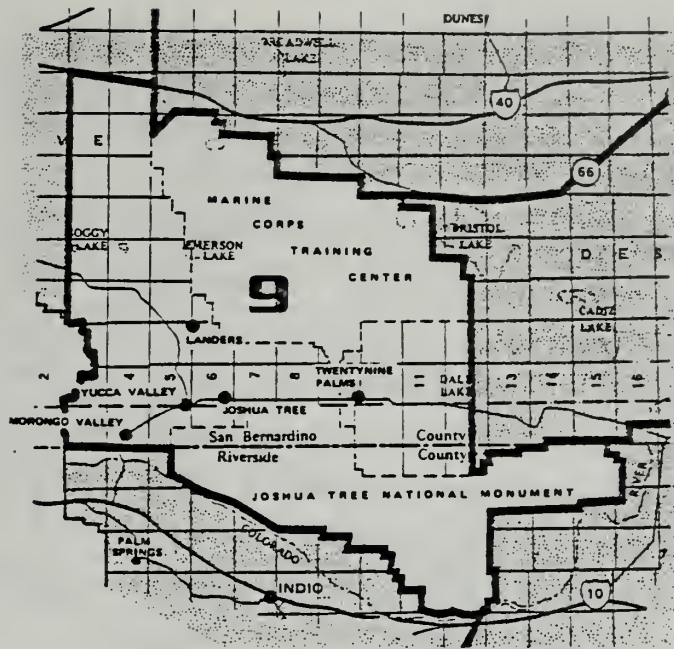
Market Area 9: Twentynine Palms

Market Area 9 had the fifth largest population in 1970, and had shown a tremendous growth rate of 57% in the previous decade. The population was predominantly White, and older. This was the only Market Area showing a decrease in the percentage of multiple family dwellings. In addition, Area 9 had one of the two highest vacancy rates in the Desert (see Figure 13).

Market Area 9 had the second highest growth rate within the Desert between 1960 and 1970, with a 57% increase in population. Its growth rate during the 1970s was a much more moderate 25%. However, since 41% of its population was in the armed forces, these increases (and any decreases) cannot be totally attributed to normal growth. The Area was predominantly (89%) White, with 7% Spanish-Americans, 2% Blacks, and 2% other minorities; this ethnic distribution varied from the Desert norm. The age distribution for Area 9 also varied from the Desert norm. There were fewer children and infants than the norm, and more adults over 55. However, the age group from 18 through 34 also constituted a substantial percentage of the population (25%).

This Market Area had 5% more white-collar workers than the Desert as a whole in 1970 (Figure 3). Incomes in Area 9 were fairly low, with 35% of the population earning less than \$10,000 annually, and only 10% earning more than \$15,000 a year. A very substantial percentage of the population (39%) fell below the poverty line in 1970. Less than 10% of the population received public assistance, however.

In Figure 13, it is apparent that most of the housing stock (over 90%) were single family dwellings in 1970. This showed an increase in single family dwellings between 1960 and 1970. (In 1960, only 85% of the housing fell into this category.) This was the only Market Area where the percent of multiple dwellings decreased during the 1960s. Area 9 had an exceedingly high vacancy rate in 1970, with almost 50% of the housing standing empty. Only one other Market Area (13) had a similar vacancy rate. Most non-vacant housing was owner occupied. The population in Market Area 9 was not particularly stable according to this indicator. Stability falls considerably below the norm for the Desert.



INDICATOR	REGION		
	MARKET AREA 9	DESERT	COAST
POPULATION — 1960	17,175	329,854	8,781,535
POPULATION — 1970	27,029	424,154	11,340,863
POPULATION — 1977 (Est.)	33,889	487,524	11,700,567
MEDIAN EDUCATION — 1970 (Years)	12.2	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$6,436	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	57	29	29
POPULATION CHANGE (%) 1970 TO 1977	25	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	89	73	72
b. SPANISH-AMERICAN	7	21	17
c. OTHER	2	3	3
d. BLACK	2	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	7	11	10
b. 6-17 YEARS	16	26	22
c. 18-34 YEARS	25	23	24
d. 35-54 YEARS	16	22	25
e. 55+ YEARS	36	18	19
BLUE-COLLAR WORKERS — 1970 (%)	47	54	46
PUBLIC ASSISTANCE — 1972 (%)	8.9	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	39	23	16
b. \$5,000-\$10,000	35	32	28
c. \$10,000-\$15,000	17	25	28
d. \$15,000-\$25,000	8	16	22
e. \$25,000-UP	2	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	92.0	84.1	67.6
b. OWNER OCCUPIED	34.5	47.5	51
c. RENTER OCCUPIED	16.4	33.5	43
d. VACANT	49.1	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	29.0	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 13 MARKET AREA 9: TWENTYNINE PALMS

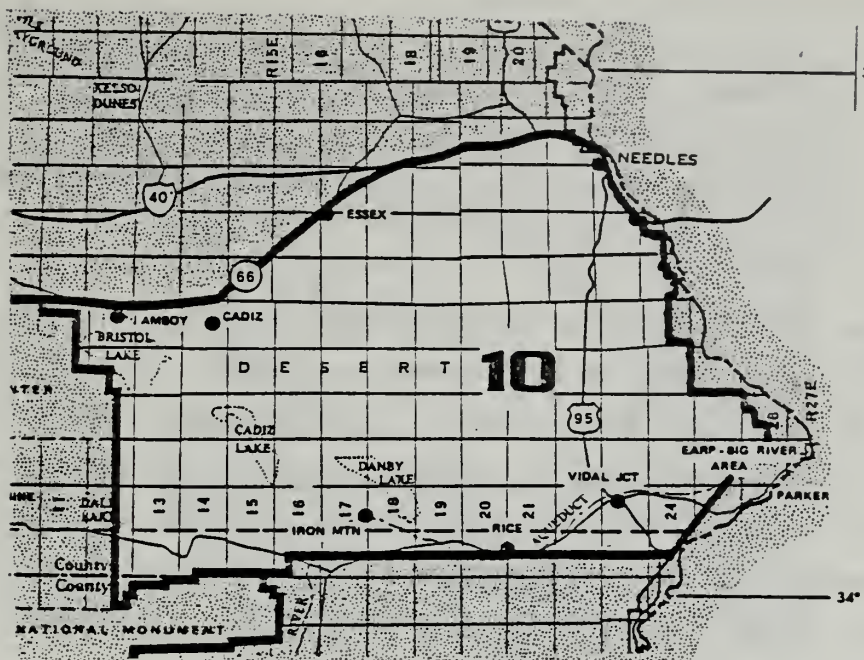
Market Area 10: Amboy-Needles

Market Area 10 was the only Area to lose population during the 1960s. The population had a high percentage of the elderly, and was relatively stable (see Figure 14).

Although Market Area 10 had the eighth largest population in 1960, it lost population during the decade. Consequently, in 1970 it had dropped to the ninth position. Its growth rate during the 1970s was only 2%, so it is unlikely that this Market Area will recoup its population loss in the near future. The ethnic distribution was quite close to the Desert norm, although it had relatively fewer Blacks and more unspecified minorities. The age distribution was also close to the Desert norm, except for the concentration of the elderly. There were proportionately fewer young adults in this Market Area.

The percentage of blue-collar workers in Area 10 exceeded the Desert norm by a small amount. Income distribution was close to the overall distribution for the Desert, except that there were slightly more families earning \$10,000-\$15,000 annually. Proportionately fewer families earned between \$5,000 and \$10,000 per year. The percentage of families receiving public assistance was very close to the Desert norm.

Market Area 10 had approximately 5% more single family dwellings than the Desert. Most of these dwellings were owner occupied, and there was a moderate vacancy rate compared to the Desert. The population was more stable than the Desert average, equaling the Coast on this indicator.



INDICATOR	REGION		
	MARKET AREA 10	DESERT	COAST
POPULATION — 1960	6,096	329,854	8,781,535
POPULATION — 1970	5,717	424,154	11,340,863
POPULATION — 1977 (Est.)	5,827	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.1	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$10,275	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	-6	29	29
POPULATION CHANGE (%) 1970 TO 1977	2	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	76	73	72
b. SPANISH-AMERICAN	16	21	17
c. OTHER	7	3	3
d. BLACK	1	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	9	11	10
b. 6-17 YEARS	24	26	22
c. 18-34 YEARS	19	23	24
d. 35-54 YEARS	23	22	25
e. 55+ YEARS	25	18	19
BLUE-COLLAR WORKERS — 1970 (%)	58	54	46
PUBLIC ASSISTANCE — 1972 (%)	8.8	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	22	23	16
b. \$5,000-\$10,000	26	32	28
c. \$10,000-\$15,000	32	25	28
d. \$15,000-\$25,000	16	16	22
e. \$25,000-UP	4	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	88.1	84.1	67.6
b. OWNER OCCUPIED	51.7	47.5	51
c. RENTER OCCUPIED	34.1	33.5	43
d. VACANT	14.1	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	42.5	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 14 MARKET AREA 10: AMBOY-NEEDLES

Market Area 11: Coachella Valley

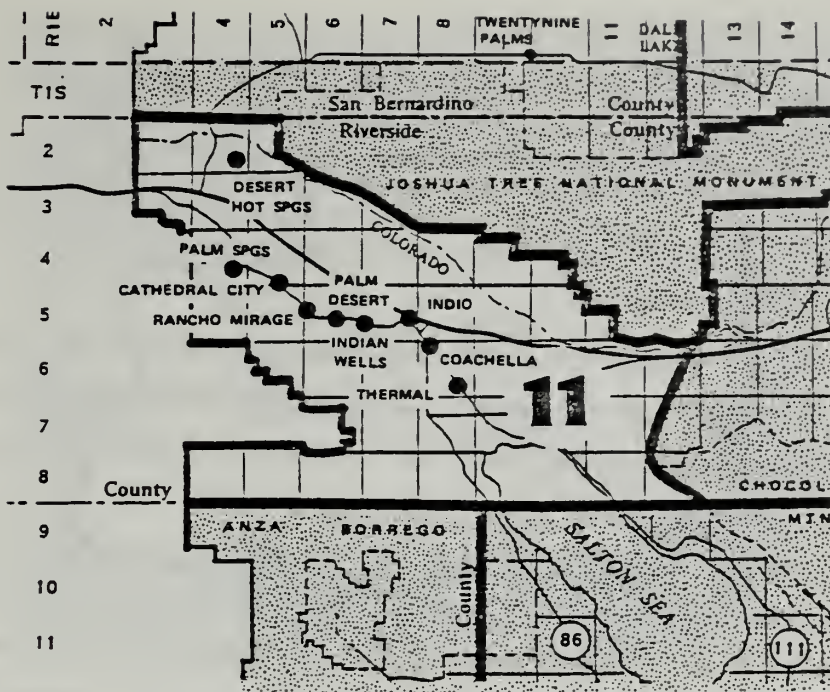
Market Area 11 experienced tremendous growth during the 1960s. It had a substantial percentage of Spanish-Americans and Blacks in 1970. There was a fairly high concentration of multiple dwellings, but most of the housing was owner occupied. The population was more stable than the Desert norm (see Figure 15).

Market Area 11 had the highest growth rate in the Desert during the 1960s, with a 60% increase in the population. As a consequence, it had the second largest population in 1970 although it had the fourth largest in 1960. The rate of increase slowed to 25% during the 1970s, but Area 11 is likely to retain its relative position. Market Area 11 had the second highest concentration of Spanish-Americans (30%), and one of the lowest concentrations of Whites (63%). It also had a relatively high concentration of Blacks (3%).

The age distribution in 1970 was fairly normal, although there was a relatively high concentration of the elderly. In conjunction with the large proportion of the elderly, Area 11 had relatively fewer children and young adults than the Desert as a whole.

Area 11 was quite close to the Desert norm with regards to occupation of the inhabitants. The income distribution was very close to the Desert norm as well, varying only one or two percentage points in each income bracket.

In Figure 4, it is apparent that Area 11 had the fourth highest concentration of multiple dwellings in 1970, exceeded only by Areas 2, 3, and 4. However, most of the housing was owner occupied. There was a substantial vacancy rate, exceeding the Desert norm by 2%. However, the population was slightly more stable than that of the Desert as a whole.



INDICATOR	REGION		
	MARKET AREA 11	DESERT	COAST
POPULATION — 1960	53,426	329,854	8,781,535
POPULATION — 1970	85,626	424,154	11,340,863
POPULATION — 1977 (Est.)	107,767	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.3	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,051	\$9,214	\$10,065

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	60	29	29
POPULATION CHANGE (%) 1970 TO 1977	26	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	63	73	72
b. SPANISH-AMERICAN	30	21	17
c. OTHER	3	3	3
d. BLACK	4	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	10	11	10
b. 6-17 YEARS	22	26	22
c. 18-34 YEARS	20	23	24
d. 35-54 YEARS	21	22	25
e. 55+ YEARS	27	18	19
BLUE-COLLAR WORKERS — 1970 (%)	55	54	46
PUBLIC ASSISTANCE — 1972 (%)	9.4	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	25	23	16
b. \$5,000-\$10,000	31	32	28
c. \$10,000-\$15,000	23	25	28
d. \$15,000-\$25,000	15	16	22
e. \$25,000-UP	7	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	77.0	84.1	67.6
b. OWNER OCCUPIED	47.1	47.5	51
c. RENTER OCCUPIED	29.4	33.5	43
d. VACANT	20.5	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	39.8	38.3	42.8

* Percentage of families occupying same residence for 5 years or more

FIGURE 15 MARKET AREA 11: COACHELLA VALLEY

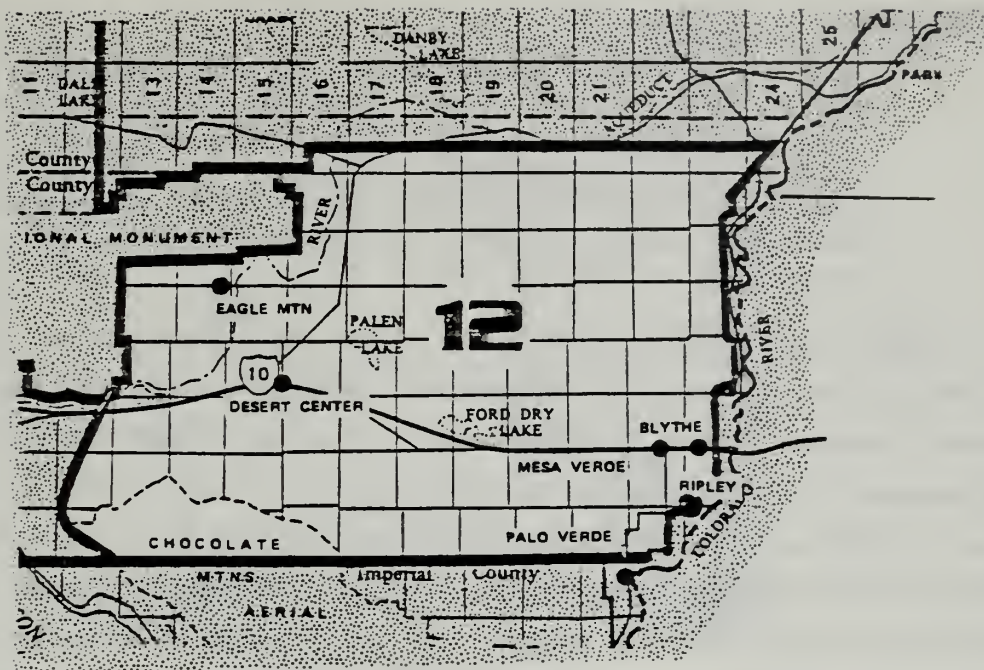
Market Area 12: Desert Center-Blythe

Market Area 12 had a substantial percentage of minorities compared to the Desert as a whole. The age distribution was weighted towards children and infants, with proportionately fewer of the elderly. Housing was equally distributed between owned and rented units. The Area had a low vacancy rate and a stable population (see Figure 16).

Market Area 12 showed only moderate growth between 1960 and 1970 relative to the Desert growth rate. It maintained its position with the seventh largest population in 1970, but its rate of growth dropped to 7% after that year (compared to 15% for the Desert). In 1970 this area had a relatively low concentration of Whites (67%), and the second highest concentration of Blacks in the Desert (7%). It also had a fairly high concentration of Spanish-Americans (23%). The age distribution was weighted toward the lower end, with one of the highest concentrations of school-aged children (28%). In addition, there were a substantial number of infants (12% of the population). Simultaneously, there was a fairly low proportion of the elderly (15%).

Almost 60% of the work force in Area 12 was classified as blue-collar in 1970 (Figure 3). This is slightly above the Desert norm for that year. The income distribution was close to the Desert norm, the chief variation was a slightly higher concentration of families in the \$10,000 to \$15,000 income category. This Area showed proportionately fewer families in the high income brackets (about \$15,000). The percentage of families below poverty level was within two points of the Desert average, as was the percentage receiving public assistance.

This Area was characterized by a relatively low percentage of multiple family dwellings (Figure 4), although not the lowest. It had equal proportions of owner occupied and rental units--the only Area in the Desert where this pattern was found. The vacancy rate was less than 10%, considerably below the Desert average. This Area also had a fairly stable population, with approximately 37% of the families living in the same house for over five years. This was almost equivalent to the Desert average.



INDICATOR	REGION		
	MARKET AREA 12	DESERT	COAST
POPULATION — 1960	11,256	329,854	8,781,535
POPULATION — 1970	13,407	424,154	11,340,863
POPULATION — 1977 (Est.)	14,401	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	11.7	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$9,370	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	19	29	29
POPULATION CHANGE (%) 1970 TO 1977	7	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	67	73	72
b. SPANISH-AMERICAN	23	21	17
c. OTHER	2	3	3
d. BLACK	8	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	13	11	10
b. 6-17 YEARS	28	26	22
c. 18-34 YEARS	22	23	24
d. 35-54 YEARS	22	22	25
e. 55+ YEARS	15	18	19
BLUE-COLLAR WORKERS — 1970 (%)	59	54	46
PUBLIC ASSISTANCE — 1972 (%)	9.4	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	21	23	16
b. \$5,000-\$10,000	33	32	28
c. \$10,000-\$15,000	30	25	28
d. \$15,000-\$25,000	13	16	22
e. \$25,000-UP	3	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	88.0	84.1	67.6
b. OWNER OCCUPIED	45.5	47.5	51
c. RENTER OCCUPIED	45.5	33.5	43
d. VACANT	8.2	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	37.8	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 16 MARKET AREA 12: DESERT CENTER-BLYTHE

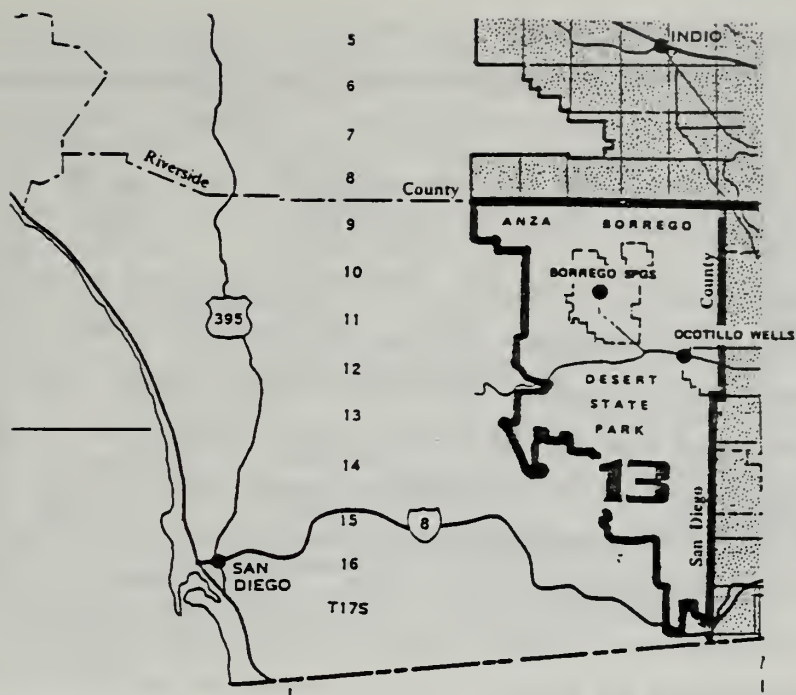
Market Area 13: Anza Borrego

Market Area 13 was characterized by a predominantly White, elderly, population. This Area shows the largest percentage of high income families in the Desert, with a substantial portion of the population below the poverty level. Half of the housing stock was vacant, and the population was quite transient (see Figure 17).

Market Area 13 grew relatively slowly during the 1960s. In 1970 it had the fourth smallest population, ranking eleventh of the 14 Market Areas. However, after 1970 it began to grow at a much faster rate, equivalent to a 40% increase in population over the decade. The population in 1970 was predominantly White (91%), with very few minorities. The age distribution was atypical, with 37% of the population over 55. There were relatively few infants and young adults (18-34) in this Area, although the percentages of school-aged children and middle-aged individuals were comparable to the Desert average.

Less than half of the population was in the labor force in 1970, and the percentage of blue-collar workers was below the Desert norm. These two facts shed some light on the income distribution, which is atypical for that year. A substantial percentage (35%) of the population fell below the poverty level, yet 24% of the population made more than \$15,000 annually. This was the largest percentage of high income families in the Desert. The proportion of the families earning over \$25,000 per year exceeded the equivalent percentage on the Coast by a factor of two. The percentage of population in the middle income bracket (\$10,000 to \$15,000) was the smallest in the Desert.

The proportion of multiple to single family dwellings within Area 13 was equivalent to the Desert norm. Owner occupied housing exceeded rental property by approximately 10%. However, this Area had an extremely high vacancy rate; almost 50% of the housing stock was unoccupied. Only Market Area 9 had an equivalent vacancy rate. Market Area 13 was one of the least stable in the Desert, with only 20% of its population living in the same place for more than five years.



INDICATOR	REGION		
	MARKET AREA 13	DESERT	COAST
POPULATION — 1960	916	329,854	8,781,535
POPULATION — 1970	1,017	424,154	11,340,863
POPULATION — 1977 (Est.)	1,420	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	12.3	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$7,187	\$9,214	\$10,865

(Percentage of Population)			
POPULATION CHANGE (%) 1960 TO 1970	11	29	29
POPULATION CHANGE (%) 1970 TO 1977	40	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	91	73	72
b. SPANISH-AMERICAN	4	21	17
c. OTHER	4	3	3
d. BLACK	1	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	6	11	10
b. 6-17 YEARS	22	26	22
c. 18-34 YEARS	12	23	24
d. 35-54 YEARS	23	22	25
e. 55+ YEARS	37	18	19
BLUE-COLLAR WORKERS — 1970 (%)	41	54	46
PUBLIC ASSISTANCE — 1972 (%)	5.9	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	35	23	16
b. \$5,000-\$10,000	31	32	28
c. \$10,000-\$15,000	10	25	28
d. \$15,000-\$25,000	12	16	22
e. \$25,000-UP	12	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	84.5	84.1	67.6
b. OWNER OCCUPIED	35.4	47.5	51
c. RENTER OCCUPIED	15.7	33.5	43
d. VACANT	48.9	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	203	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 17 MARKET AREA 13: ANZA BORREGO

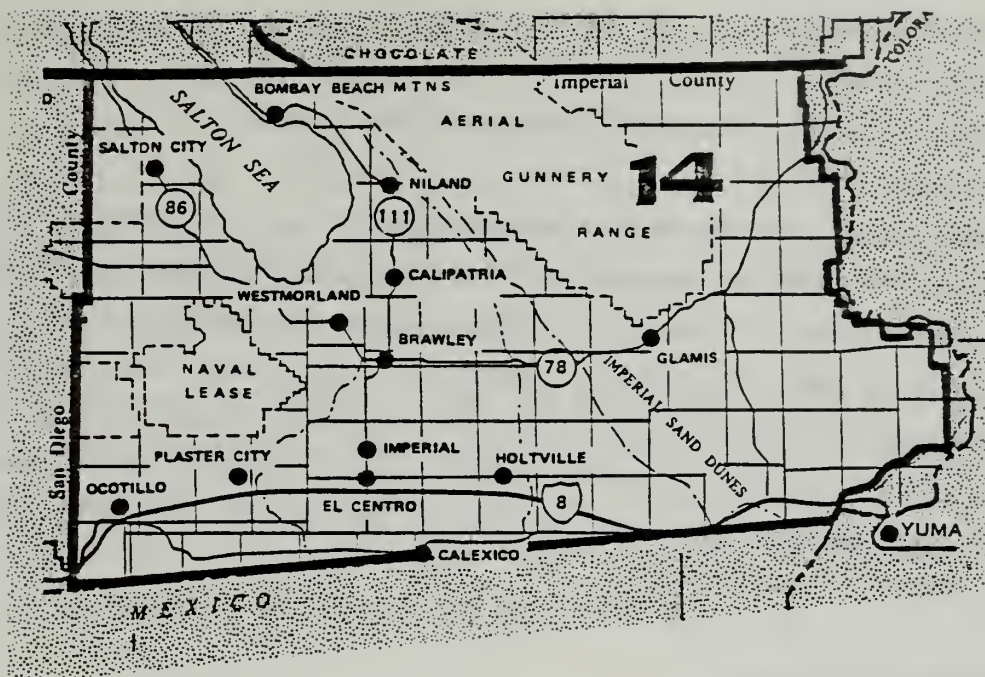
Market Area 14: Imperial County

Market Area 14 was the only Area where the minority population was in the majority. It had the largest percentage of school-aged children, and relatively few residents over 55. In addition, this was one of the most stable Areas in the Desert (see Figure 18).

Market Area 14 was the second most populated area in 1960, but its growth rate during that decade was only 3%. In 1970, Market Areas 7 and 11 had surpassed Area 14, and it had the fourth largest population. The growth rate increased during the 1970s to 16%. Imperial is one of the few areas in the Desert which is growing faster in the 1970s than it did in the 1960s. This was also the only Market Area where Whites did not form a majority of the population in 1970. Only 46% of the population was White, and there were as many Spanish-Americans. In addition, there was a small percentage of Blacks, and an equal percentage of other minorities. Area 14 had the largest percentage (30%) of school-aged children in the Desert Market Areas. It also had one of the largest percentages of infants. The percentage of older residents was comparatively small.

The percentage of blue-collar workers in this area was slightly above the Desert norm. The income distribution was fairly close to the norm for the Desert, although weighted slightly towards the lower income brackets. This area had the largest percentage of families receiving public assistance, with over 12% of the population in this category. One-quarter of the families (25%) had incomes below the poverty level in 1970.

Housing in this Market Area was predominately single family units, with approximately 15% multiple dwellings. This percentage did not change substantively between 1960 and 1970. Most of the housing was occupied, and the vacancy rate was comparately low for the Desert. The bulk of the population owned their own homes, although 42% of the occupied housing were rental units. Area 14 was one of the most stable in the Desert, with 47% of its families living in the same house for more than five years. It was one of two Desert areas having a population more stable than that of the Coast; the other is Area 5.



INDICATOR	REGION		
	MARKET AREA 14	DESERT	COAST
POPULATION — 1960	70,873	329,854	8,781,535
POPULATION — 1970	73,227	424,154	11,340,863
POPULATION — 1977 (Est.)	84,730	487,524	11,700,576
MEDIAN EDUCATION — 1970 (Years)	10.1	12.2	12.4
MEDIAN INCOME — 1970 (Dollars)	\$8,340	\$9,214	\$10,865

(Percentage of Population)

POPULATION CHANGE (%) 1960 TO 1970	3	29	29
POPULATION CHANGE (%) 1970 TO 1977	16	15	7
ETHNIC MIX — 1970 (%)			
a. WHITE	46	73	72
b. SPANISH-AMERICAN	46	21	17
c. OTHER	4	3	3
d. BLACK	4	3	8
AGE MIX — 1970 (%)			
a. 0-5 YEARS	12	11	10
b. 6-17 YEARS	30	26	22
c. 18-34 YEARS	20	23	24
d. 35-54 YEARS	22	22	25
e. 55+ YEARS	16	18	19
BLUE-COLLAR WORKERS — 1970 (%)	54	54	46
PUBLIC ASSISTANCE — 1972 (%)	12.9	10.1	9
ANNUAL INCOME — 1970 (%)			
a. LESS THAN \$5,000	25	23	16
b. \$5,000-\$10,000	36	32	28
c. \$10,000-\$15,000	23	25	28
d. \$15,000-\$25,000	12	16	22
e. \$25,000-UP	3	4	6
HOUSING UNITS — 1970 (%)			
a. SINGLE FAMILY	85.3	84.1	67.6
b. OWNER OCCUPIED	52.0	47.5	51
c. RENTER OCCUPIED	37.9	33.5	43
d. VACANT	9.3	18.1	5
STABILITY OF FAMILIES* — 1970 (%)	47.2	38.3	42.8

* Percentage of families occupying same residence for 5 years or more.

FIGURE 18 MARKET AREA 14: IMPERIAL COUNTY

III THE DESERT AND THE COAST

This section discusses the demographic indicators presented in the previous section as aggregates for the Coast and the Desert. In addition, a Desert/Coast comparison of indicators for health and public safety is included. It was not possible to accurately distribute indicators for health or public safety across the Market Areas, since it is impossible to tell where a given event occurred from secondary sources. However, aggregate figures for the Desert and Coast were developed with a fair degree of confidence.

Demographic Indicators

The Desert and the Coast grew at the same rate during the 1960s (29%), as is shown in Figure 2. Of course, the base population in the Desert was much smaller than that of the Coast; in 1960 the Desert population equaled 4% of the Coast population. This relationship was unchanged in 1970. However, during the subsequent decade the Desert has grown at approximately two times the rate found on the Coast; by 1980 the ratio of the two populations may have changed. The Coast and the Desert had almost exactly the same percentage of Whites. However, the desert showed a higher percentage of Spanish-Americans than the Coast, which had a higher percentage of Blacks than the Desert. The Desert had proportionately more children than the Coast, which had a slightly higher percentage of middle-aged and elderly adults. This contradicts a commonly held theory that the Desert population is dominated by elderly retirees.

As Figure 3 indicates, the Desert had a slightly higher percentage of blue-collar workers than the Coast in 1970. In addition, the Desert population seems to be poorer than the Coast population. A larger percentage of the Desert population is concentrated in the lower income brackets, and the upper income brackets are proportionately smaller.

For example, only 20% of the total population in the Desert earned more than \$15,000 annually in 1970, while 28% of the population on the Coast fell into this category. Conversely, 23% of the total Desert residents earned less than \$5,000 per year, while only 16% of the Coast population fell below this line. The percentage of families receiving public assistance was almost the same for the Desert and the Coast, so one may conclude that poor Desert residents are less likely to receive public aid than their counterparts in urban areas.

It is apparent in Figure 4 that the Coast had a much higher concentration of multiple family units than the Desert. At the same time, the Desert had more owner occupied housing than the Coast. The vacancy rate in the Desert was considerably higher than the rate on the Coast, and the population on the Coast was more stable.

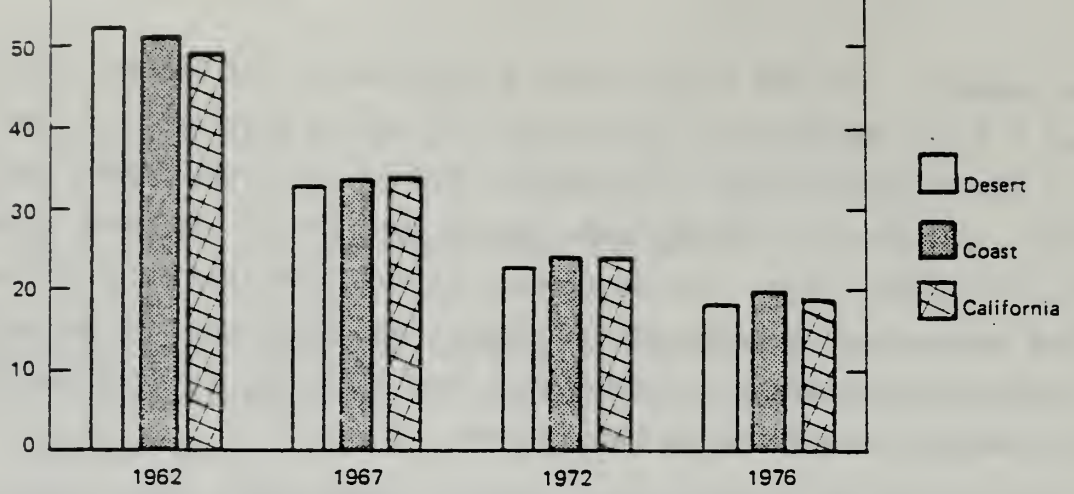
Health Care Indicators

In Figure 19 the relative distribution of doctors and dentists is shown, as well as the number of infant deaths per 100,000 population. Comparable information on doctors, dentists, and infant deaths is provided for the Desert, the Coast, and the State.

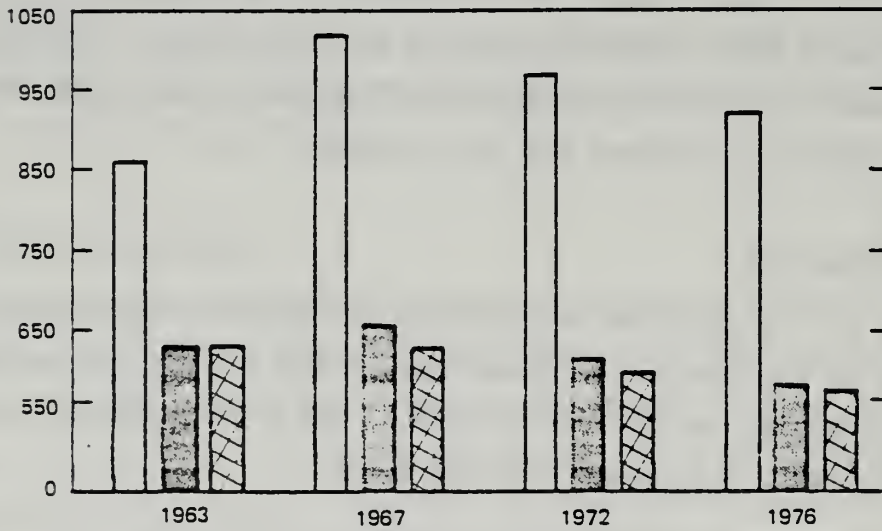
Table 2 shows the distribution of hospital facilities. This information, the result of a special analysis, is shown for the Desert only (1977).

There has been a steady decline in infant deaths from 1962 to 1976 for all of the comparative areas. In 1962 the Desert had proportionately more infant deaths than the Coast or California, but after 1967 the Desert consistently shows slightly fewer infant deaths per 100,000 population than either the Coast (the highest number) or the State.

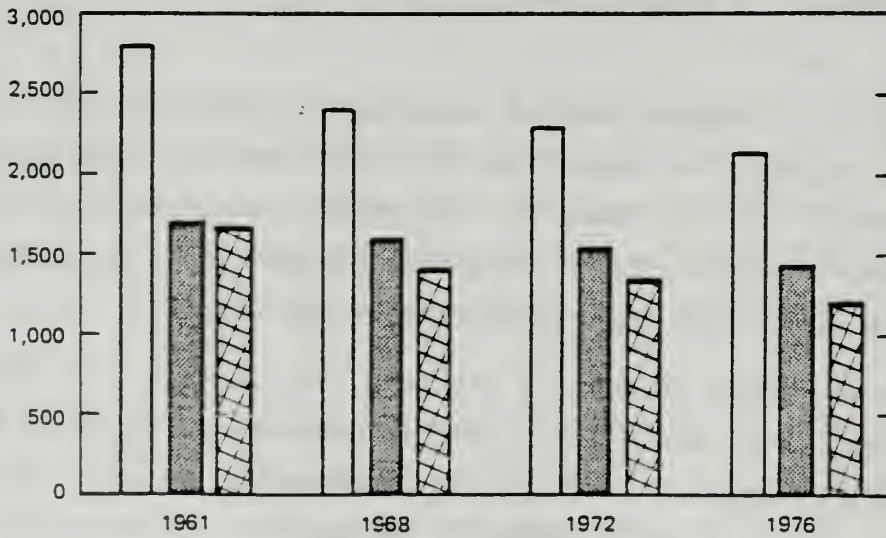
The ratio of people to doctors was much less favorable in the Desert than in the State or on the Coast. That is, the Desert had many more people per doctor than either of the two comparative regions. The situation was at its worst in 1967; gradually improving in 1972 and 1976. However, in 1976 there were still roughly 400 more people per doctor in



a. INFANT DEATHS PER 100,000 POPULATION*



b. PEOPLE PER DOCTOR*



c. PEOPLE PER DENTIST*

* Estimated Figures.

FIGURE 19 HEALTH INDICATORS

Table 2

DISTRIBUTION OF HOSPITAL FACILITIES
IN THE CALIFORNIA DESERT IN 1977

<u>Market Area</u>	<u>Population per Hospital Bed</u>	<u>Population per Emergency Department</u>
1	No beds	No emergency department
2	No beds	No emergency department
3	2,878	28,782
4	No beds	No emergency department.
5	No beds	No emergency department
6	257	41,336
7	389	20,822
8	No beds	No emergency department
9	1,412	33,889
10	149	5,827
11	200	35,922
12	400	14,401
13	No beds	No emergency department
14	375	28,243
Desert	311	28,786
Coast	179	62,687

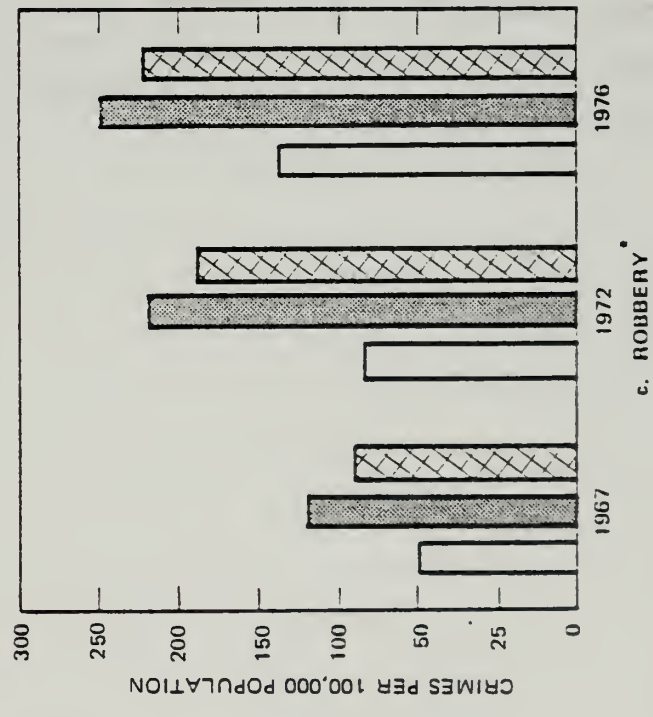
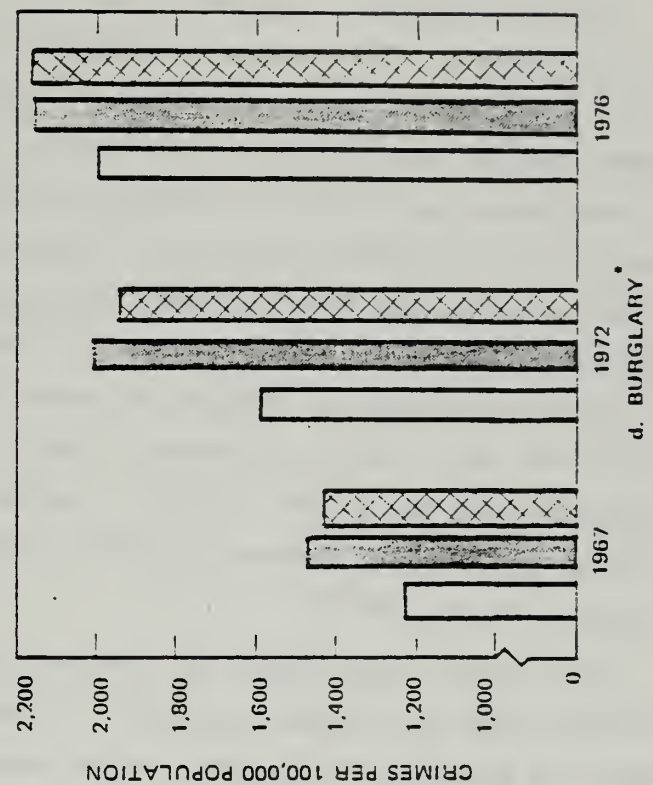
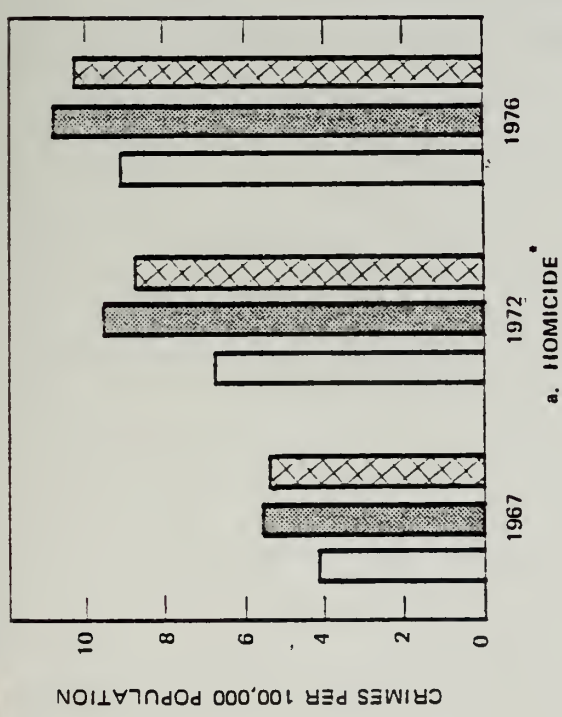
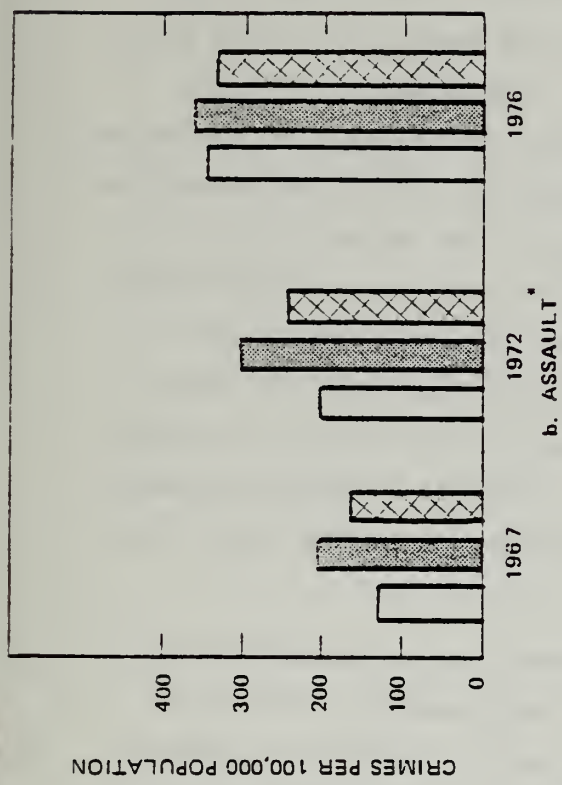
the Desert than on the Coast. A comparable situation existed for dentists, although the discrepancy was not so great. The desert consistently had more people per dentist than the State or the Coast. However, the gap between the Desert and the comparative regions is slowly closing over time, as is apparent in Figure 18.

The distribution of hospital facilities in Table 2 shows that in 1977 six of the fourteen Market Areas have no hospital facilities. Reference to the map in Figure 1 indicates that there are no hospital facilities in the eastern section of the desert composed of Market Areas 1, 2, 4, 5, and 8. In addition, Market Area 13 lacks hospital facilities. This is less important, however, since the residents of Area 13 would have ready access to hospital facilities in the urban portion of San Diego County or Imperial County. The average population per bed in the Desert was 311; on the Coast it was 179. In addition, the amount of public funds spent on health care in the Desert exceeds the comparable amount spent on the Coast. In 1967 the per capita public expenditure for health care in the Desert was \$9.09; on the Coast it was \$4.70. In 1974 these figures had risen to \$13.96 and \$8.75 respectively. (See Appendix G for further comparison of health care expenditures.)

Public Safety Indicators

Crimes per 100,000 population were computed for the Desert, the Coast, and the State of California. Homicide and assault are examples of crimes against persons. Robbery and burglary are examples of crimes against property. The data in Figure 20 were collected for 1967, 1972, and 1976.

The homicide rate has steadily increased in all three comparative regions, although the relationship between the three regions remains the same. The Coast had the highest rate in 1976, California had the second highest, and the Desert had the lowest. However, between 1972 and 1976 the gap between the Desert and the State was closed perceptibly. The pattern for assault was similar during 1967 and 1972. That is, the Coast had the most assaults per 100,000, the State was second, and the Desert had the lowest rate. In 1976 this relationship changed, and the



* Estimated Figures.

FIGURE 20 PUBLIC SAFETY INDICATORS

Desert showed more assaults per 100,000 than the State, although less than the Coast.

Robbery rates had a pattern similar to homicide rates, with one major difference. The number of homicides in the Desert increased more rapidly than the number on the Coast in 1976. Consequently, the gap between the two was reduced. This did not occur in the case of robberies. Although there was a steady increase in robbery for all of the areas, the Desert did not increase faster than the others. The relative positions of Coast, State, and Desert remain unchanged for the three sample years. There also was a steady increase in the number of burglaries in all of the comparative regions. While the Coast led the State and the Desert in 1967 and 1972, the State showed slightly more burglaries per 100,000 population than the Coast in 1976. The Desert showed a larger increase in 1976, so that the burglary rate for the Desert approached that of the Coast much more closely.

Per capita expenditures for law enforcement in the Desert and on the Coast have also risen steadily. In 1962 approximately \$11.45 per capita was spent in the Desert, while approximately \$15.85 was spent on the Coast. By 1972, the amounts had risen to \$25.90 and \$38.20 respectively. This was a 141% increase in per capita expenditures on the Coast, and a 126% increase in the Desert. (For further information on public safety expenditures see Appendix G.)

Appendix A
DATA SOURCES AND LIMITATIONS

Appendix A

DATA SOURCES AND LIMITATIONS

This Appendix describes the data sources used for each of the selected social indicators. It discusses the limitations and variations of each source.

Demographics

Information on population distribution, ethnic mix, occupation, and age mix for each market area, the Desert as a whole, and the Coast was developed by the ONSITE computer program from Urban Decisions Systems, Inc. This program has a file of 1970 census information on a block by block basis. County information was disaggregated and reaggregated by longitude and latitude into the various planning units described by the Desert Planning staff. This was done by the ONSITE program, which has a block by block data file. The population distribution formed the basis of the formulas used to estimate other indicators for the market areas. The data are subject to the limitations of the census.

Revenue and Expenditures

Revenue data are presented in Appendix C, Income and Wealth and expenditure data appears in Appendix G. Data on expenditures was collected from the Compendium of Government Finance (Volumes 4 and 5), published every five years by the Bureau of the Census. Use of the same source for all expenditure data maximizes comparability. However, the information in these documents is reported by the local governments, and there is no way to ascertain the level at which they complied with the census directions. That is, there may be some variations in the base data. Health expenditure data was excluded from the 1962 figures because it included expenditures for hospitals in that year. The other two years (1967, 1972) excluded this information; these years show only the cost of health services other than hospitalization.

Information on local property tax rates in California was collected from the Annual Report of Financial Transactions Concerning Counties in California, published by the State Controller. Comparable information was not available for Arizona or Nevada.

Political and Public Information

The majority of data on voter registration and voter turn-out at Federal elections was supplied by the Secretary of State's Offices in California, Nevada, and Arizona for each county. Voter turn-out in 1968 was extracted from the County and City Data Book 1972, Table 2, "Votes Cast for President, 1968."

Health

Statistics on infant deaths in California were supplied by the California State Department of Health for each county. Since California data for 1962 were unavailable, an estimate for that year was developed by averaging 1960 and 1964 information. The Vital Statistics Departments of Nevada and Arizona supplied the infant death statistics for Clark County, Mohave County, and Yuma County.

Information on the total number of non-federal doctors in patient care by county was extracted from Distribution of Physicians in the U.S. 1963, Distribution of Physicians, Hospitals and Hospital Beds in the U.S. 1967, 1972, and Physicians Distribution and Medical Licensure in the U.S. 1976. Data from 1963 were used because the 1962 volume was unavailable. The number of doctors was for December 1963, December 1967, December 1972, and December 1976.

Distribution of Dentists, "Distribution by State, Region, and Federal Dental Service," for 1961, 1968, 1972, and 1976 is the source for the number of dentists by county. 1961 and 1968 data were used for California because 1962 and 1967 information was unavailable. Data for Arizona and Nevada are for 1962, 1967, 1972, and 1976. In order to make the 1976 data comparable to earlier years, it was necessary to add the number of graduates and the number of retired dentists to the total given in the 1976 publication.

Data on hospital locations, hospital beds, and emergency departments were extracted by city from the American Hospital Association Guide to the Health Care Field, 1977 Edition. The city locations enabled us to assign the hospital data directly to a market area or the Coast region. Unfortunately, some of the hospitals on the Coast did not report whether or not they had emergency departments; these missing data probably caused an underestimation of the number of emergency departments in the Coast region.

Housing

The ONSITE computer program used 1970 census data to supply the housing information by market area and county for 1970. The 1960 county data on the percentage of persons over five years of age living in the same house are from Census of the Population, Characteristics of the Population, California, Arizona, and Nevada, Table 82. The remainder of the 1960 housing data by county are from County and City Data Books 1967, Table 2 and General Housing Characteristics 1960. The median monthly rent reported in 1960 was a median gross rent that included contract rent plus the average monthly cost of utilities. It should be noted that there was some variation between the county data reported for 1970 by the ONSITE information and the other 1970 census documents. Since there should not have been any variation, it is possible that the 1960 and 1970 data from these two sources are not comparable.

Income and Wealth

The percentage of families with an income less than \$5,000 and the median family income in 1970 and 1977 was supplied by the ONSITE computer program for market areas and counties. Information for 1970 is from 1970 census data, and 1977 data were estimates based upon census data. No estimate was made in 1977 for Market Area 4 because that Area contains a military installation with a high turn-over in population. The source for the 1960 county data is the County and City Data Book, 1967, Table 2. This publication supplied the percentage of households with an income less than \$3,000 in 1960 and the median incomes for 1960.

The number of individuals receiving public assistance by county is from County and City Data Books, 1967 and 1972. The data were for 1964 and 1972. In 1964, public assistance included old age assistance, medical assistance for the aged, aid to dependent children, aid to the blind, and aid to the permanently and totally disabled. Also included were general assistance programs that were administered and financed by states and localities without Federal participation. The 1972 number included old age assistance and aid to families with dependent children. The latter group included children and parents or caretakers in families where the needs of adults were also considered in determining the amount of need.

Education

The median number of school years completed by persons aged 25 years or older and the number of children aged 6-17 in 1970 were from the ONSITE computer program; data were for market areas and counties. The County and City Data Book 1967 supplied the median number of school years completed in 1960 for each county. Enrollment in kindergarden, elementary, and high school by county were extracted from 1960 Census of the Population-Characteristics of the Population and 1970 Census of the Population-General Social and Economic Characteristics.

Public Safety

The Criminal Justice Profile 1976 provided the crime statistics for the ten California counties in 1967, 1972, and 1976; county data were unavailable in 1962. Crime data for 1967 and 1972 for the state of California and for Clark County, Nevada were from the Uniform Crime Reports 1967, 1972. The Uniform Crime Reports did not contain information on Mohave County or Yuma County because they are not standard metropolitan statistical areas. The U.S. Statistical Abstract 1977 provided the 1976 California data, and the Uniform Crime Report 1974 provided the Clark County data for 1974. Data for Mohave County and Yuma County were not available from either the Arizona State Crime Commission or the county offices. It was necessary to assume comparability, since a standard source for this information does not exist.

Appendix B

ASSUMPTIONS AND METHODOLOGY

Appendix B

ASSUMPTIONS AND METHODOLOGY

This section discusses the assumptions made and methods used to estimate the social indicators in this report.

When a market area encompassed parts of two counties, estimates were based on information from each county. A weighted average of these two estimates was then calculated.*

Estimates for the Desert as a unit were obtained by weighting estimates of the 14 market areas according to population, summing these, and dividing the result by the Desert population. The Coast estimates were obtained in the same manner, using the six coastal counties.†

Expenditures

The assumption was made that expenditures were uniform throughout a county. Estimates of expenditures are based on the population of a given area. Errors in estimation will occur when a specific area has a population receiving greater (or lesser) expenditures per person than the county at large. For example, a market area with few school-age children and great distances may have higher than average expenditures per pupil for education. There is no way to determine this from secondary sources so these factors cannot be used to adjust the estimates.

The formula used to estimate the expenditures for the Desert is as follows:

* The weightings used were the percent of people in the market area from the specific county.

† Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. Inyo and Kern Counties were excluded as not part of the southern metropolitan region.

$$\text{Market area expenditure} = \frac{\text{County expenditures}}{\text{Number of people in county}} \times \frac{\text{Number of people in market area}}{\text{Number of people in county}}$$

The Desert expenditures per person equal the sum of expenditures for the 14 market areas divided by the Desert population.* Figures for the Coast were calculated in a similar manner.

$$\frac{\text{Coast expenditures}}{\text{Person}} = \frac{\text{Sum of 6 Coast county expenditures}}{\text{Coast population}}$$

Health

Infant Deaths

Since data were unavailable for 1962 we used an average of the 1960 and 1964 data to get an estimate for 1962. For the same reason, 1968 data were used in place of 1967 data.

It was assumed that infant deaths occurred with the same frequency (per population) in the market areas as in the respective county. To estimate the number of infant deaths per 100,000 people, the number of infant deaths occurring in a market area was approximated as follows:†

$$\frac{\text{Number of infant deaths in market area}}{\text{Number of infant deaths in a county}} = \frac{\text{Number of people in market area}}{\text{Number of people in county}}$$

To determine the number of infant deaths per 100,000 people the following formula was used:

$$\frac{\text{Number of infant deaths in Desert population per 100,000}}{\text{Sum of infant deaths in 14 market areas}} = \frac{\text{Population in Desert}}{\text{Population in Desert}} \times 100,000$$

*For education expenditures the population age 6-17 was used.

†Due to a low infant death rate and a low population in some of the market areas, the infant death rate in some market areas is less than one.

The number of infant deaths per 100,000 population for the Coast region was determined in a similar way.

$$\begin{array}{l} \text{Number of infant deaths} \\ \text{in Coast population} \\ \text{per 100,000} \end{array} = \frac{\begin{array}{l} \text{Sum of infant deaths} \\ \text{in 6 counties} \end{array}}{\text{Population in Coast}} \times 100,000 \quad .$$

Number of People per Patient Care Doctor

The data were unavailable for 1962. Data for 1963 were used instead. The assumption was made that doctors were equally distributed by population throughout the county, since there was no way to determine otherwise from the sources used. The formula for estimating the number of doctors in a market area is:

$$\begin{array}{l} \text{Number of doctors in} \\ \text{a market area} \end{array} = \begin{array}{l} \text{Number of doctors} \\ \text{in county} \end{array} \times \frac{\begin{array}{l} \text{Number of people} \\ \text{in market area} \end{array}}{\begin{array}{l} \text{Number of people} \\ \text{in county} \end{array}} \quad .$$

To estimate the number of people per doctor in the Desert the following formula was used:

$$\begin{array}{l} \text{Number of people per} \\ \text{doctor in Desert} \end{array} = \frac{\begin{array}{l} \text{Number of people in} \\ \text{Desert area} \end{array}}{\begin{array}{l} \text{Sum of doctors in 14} \\ \text{market areas} \end{array}} \quad .$$

The number of people per doctor in the Coast region were calculated in the same way:

$$\begin{array}{l} \text{Number of people per} \\ \text{doctor in Coast area} \end{array} = \frac{\begin{array}{l} \text{Number of people in} \\ \text{Coast area} \end{array}}{\begin{array}{l} \text{Sum of doctors in 6} \\ \text{Coast counties} \end{array}} \quad .$$

Number of People per Dentist

For California the data for dentists were not available in 1962 and 1967. Data for 1961 and 1968 were used instead. In Nevada and Arizona the data were for 1962 and 1967.

The assumptions and formulas for estimating the number of people per dentist are identical to those used for doctors.

Political

Percent of Eligible Population Registered to Vote

Data for the Federal elections in 1964, 1968, 1972, and 1976 were collected for all market areas and the comparative regions. To determine the number of eligible voters, it was assumed that the percentage of the population over 21 was the same in 1964 and 1968 as in 1970. Similarly, the percentage of the population over 18 in 1972 and 1976 was presumed the same as in 1970. This calculation is based on the assumption that voter registration is equally distributed across the county.

We determined the number of eligible voters in a given year as follows:

$$\text{Number eligible to vote in market area} = \frac{\text{Population for year in market area}}{\text{Population for year in market area}} \times \text{Percentage of population over voting age in 1970*} .$$

The number of voters registered in the market areas was calculated by:

$$\text{Number registered to vote in market area} = \frac{\text{Number registered to vote in county}}{\text{County population}} \times \frac{\text{Market area population}}{\text{County population}} .$$

To obtain the percent of voters registered the following formula was used:

$$\text{Percent of eligibles registered in market area} = \frac{\text{Number registered to vote in market area}}{\text{Number eligible to vote in market area}} .$$

*For 1964 and 1968, it was percentage over 21 years of age. For 1970 and 1976 we used percentage over 18.

Voter Turn-Out

Information on voter turn-out in the Federal elections of 1964, 1968, 1972, and 1976 was collected.

The formula assumes that voter turn-out is equally distributed across a county's population. Voter turn-out in the market areas was estimated as follows:

$$\text{Number voting in market area} = \text{Number voting in county} \times \frac{\text{Number people in market area}}{\text{Number people in county}} .$$

The voter turn-out was then calculated as:

$$\text{Voter turn-out in market area} = \frac{\text{Number voting in market area}}{\text{Number registered in market area}} .$$

Income and Wealth

Family Income Below Poverty Level

We assumed the poverty level was \$4,000 in 1960 and \$5,000 in 1970 and 1977. These figures were based on a conversation with a representative of the State welfare office. No estimate is available for Market Area 4 due to the high population turn-over at the military bases. The base data were developed from the 1970 census by the ONSITE computer program.

To estimate the percentage of the population earning below the \$3,000 level in 1960 we assumed that the ratio of the percentage of families with an income below the poverty level in a market area to the percentage of families below poverty level in the county was the same in 1960 and 1970:

$$\frac{\text{Percentage of families in market area earning less than \$3,000 in 1960}}{\text{Percentage of families in county earning less than \$4,000 in 1960}} = \frac{\text{Percentage of families in market area earning less than \$5,000 in 1970}}{\text{Percentage of families in county earning less than \$5,000 in 1970}} .$$

Median Income

We assumed that the ratio of the median income in a market area to the median income in a county was the same in 1960 and 1970. Data for 1970 were developed by the ONSITE computer program. The following assumption

$$\frac{\text{Median income in market area in 1960}}{\text{Median income in county in 1960}} = \frac{\text{Median income in market area in 1970}}{\text{Median income in county in 1970}}$$

leads to the formula:

$$\text{Median income in market area in 1960} = \frac{\text{Median income in market area in 1970}}{\text{Median income in county in 1970}} \times \text{Median income in county in 1960}$$

Public Assistance

The public assistance data are for 1964 and 1972. For California counties, the number of persons receiving public assistance was divided by county population in 1964 and 1972. For the Nevada and Arizona counties, the 1960 and 1970 county populations were used.

We assumed that public assistance was apportioned according to percentage of county population residing in the market areas in 1970. This was an unavoidable assumption because of the sources used. This leads to the following calculations:

$$\text{Number receiving assistance in market area} = \text{Number receiving assistance in county} \times \frac{\text{Number of people in market area}}{\text{Number of people in county}}$$

Crime

It was assumed that a specific crime occurred with the same frequency per population in all areas of the county. The number of crimes in a market area was calculated by the following method.*

$$\text{Number of crimes in market area} = \text{Number of crimes in county} \times \frac{\text{Number of people in market area}}{\text{Number of people in county}}$$

The number of crimes in the Desert was calculated as follows:

$$\text{Number of crimes in Desert per 100,000 population} = \frac{\text{Sum of crimes in 14 market areas}}{\text{Number of people in Desert}} \times 100,000$$

Figures for the Coast were computed in the same manner as for the Desert.

Housing

Single Family Units

It was assumed that the ratio of single family units in a market area to single family units in the respective county was the same in 1960 as it was in 1970. This assumption

$$\frac{\text{Percent of single family units in market area in 1960}}{\text{Percent of single family units in county in 1960}} = \frac{\text{Percent of single family units in market area in 1970}}{\text{Percent of single family units in county in 1970}}$$

*The low frequency of some crimes and the small population of some market areas lead to some figures equaling less than one.

leads to the formula:

$$\begin{array}{lcl} \text{Percent of single} & \text{Percent of single family units} & \text{Percentage of single} \\ \text{family units in} & \text{in market area in 1970} & \text{family units in} \\ \text{market area in} & = \frac{\text{Percent of single family units}}{\text{in county in 1970}} \times & \text{county in 1960} \\ 1960 & & \end{array}$$

Base data for 1970 were generated by the ONSITE computer program.

Multiple Family Units

For this measure we subtracted the percentage of single family dwellings from 100%.

Median Housing Value, Median Rent and Stability

These values were calculated in exactly the same manner as the percentage of single family units. The assumptions made were also the same. They are based on the ONSITE program.

Education

Percentage of School-Aged Children

School-aged children were defined as people 6-17. In order to estimate this number for 1960 it was assumed that the ratio of the number of students enrolled in school to the number of school children was the same in 1960 and 1970.

This leads to the following formula:

$$\begin{array}{lcl} \text{Number of school age} & \text{Number of school age children} & \text{School enroll-} \\ \text{children in a county} & \text{in a county in 1970} & \text{ment in county} \\ \text{in 1960} & = \frac{\text{School enrollment in county}}{\text{in 1970}} \times & \text{in 1960} \end{array}$$

To get the percentage figures for the market areas we used this formula:

$$\begin{array}{lcl} \text{Percentage of school-} & \text{Percentage of school-aged chil-} & \text{Percentage of} \\ \text{aged children in market} & \text{dren in a market area in 1970} & \text{school-aged} \\ \text{area in 1960} & = \frac{\text{Percentage of school-aged chil-}}{\text{dren in county in 1970}} \times & \text{children in} \\ & & \text{county in 1960} \end{array}$$

This is based on the assumption that the ratio of school-aged children in a market area to school-aged children in the county was the same in 1960 and 1970. In other words, the age distribution changed uniformly throughout the county.

Median Years of Education

To calculate median education we had to assume that the ratio of the median years of education in a market area to the median years of education in the respective county was the same in 1960 and 1970. This leads to the formula:

$$\begin{array}{l} \text{Median years of} \\ \text{education in market} \\ \text{area in 1960} \end{array} = \frac{\begin{array}{l} \text{Median years of education} \\ \text{in market area in 1970} \end{array}}{\begin{array}{l} \text{Median years of education} \\ \text{in county in 1970} \end{array}} \times \begin{array}{l} \text{Median years of educa-} \\ \text{tion in county in 1960} \end{array}$$

Appendix C
INCOME AND WELATH

Appendix C

INCOME AND WEALTH

Introduction

Three indicators were developed to measure the relative wealth/poverty of the Desert population as compared to the population of other regions.

- Median income.
- Percent of households below the poverty level (>\$3,000 per year in 1960; <\$5,000 per year in 1970) estimates were developed in conjunction with the State Department of Welfare.
- Percent of households receiving public assistance.

This information was supplemented by two measures of public solvency;

- The per capita amount received from the state and federal governments.*
- The per capita tax revenue generated in the Desert and the Coast.†

Information on personal wealth is based on the census taken in 1960 and 1970 (see Appendix A). Estimates were made of the median incomes in all market areas for 1977. The percentage of families with incomes below \$5,000 per year in 1972¹ was also estimated. Information about the

*These figures include all types of intergovernmental aid, and are allocated to the Desert or the Coast according to population distribution. Any attempt to present the data on a more precise format would be questionable since public expenditures are not associated with geographic location. This information should also be interpreted with care.

†These figures are rough approximations based on the revenue generated by major cities in the Desert region, as compared to the Coast. A precise estimation of the tax dollars generated by various regions was impossible without an intensive on-site analysis of the tax roles in the various counties. It is not clear that this information would be available even then, depending on the records kept by each county.

percentage of people receiving public assistance was only available for 1964 and 1972, and should be interpreted with care since it was not available for 1960 and 1970. No direct comparisons can be made, although the shifts between the census years and the other years are probably not major. It was assumed that public assistance is distributed evenly according to population within a county; this assumption may not be valid, since some populations may have more need for public assistance than others. However, it is impossible to determine this from secondary sources.

Table C-1 compares the wealth/poverty indicators for the 14 market areas, the Desert, the Coast, a county in Nevada, and two Arizona counties.

Median Income

The Desert had a lower median income than the Coast and California. Not only was the median income for the Desert lower during each of the study years, but its increases were not as large as increases shown for the Coast and the State. The two Arizona counties were generally equivalent to the Desert, although they dropped below the Desert in the 1977 estimates. Clark County, however, showed a median income closer to that of the Coast and California. In the 1977 estimates, Clark exceeded both of these comparative regions (by a small margin).

Market Area 5 consistently had the lowest median income, while Market Areas 3 and 6 showed the highest median income across all three years. In 1970, Market Area 10 attained a median income almost comparable to that found in Area 6, and higher than the remainder of the market areas. The population of Area 10 generally earned between \$10,000 and \$20,000 a year, although 16% make between \$20,000 and \$30,000. The 1977 estimates for Market Area 12 give it a median income comparable to that found in Area 10. This is a substantial increase from 1970 figures for Area 12.

Table C-1
INCOME AND WEALTH

Market Area	Median Income (Dollars)			Percent of Population with Income Below Poverty Level			Percent of Population Receiving Public Assistance	
	1960*	1970	1977	>\$5,000	<\$5,000		1964*	1972*
				1960*	1970	1977		
1	\$4,673	\$ 7,876	\$12,092	28.6%	25.6%	19.8%	7.6%	5.5%
2	5,749	9,812	14,713	5.9	5.3	0	7.6	5.5
3	7,671	11,639	17,278	8.9	11.3	5.8	7.2	9.6
4	3,856	6,067	±	33.1	40.5	±	6.3	8.8
5	2,637	4,500	7,155	63.5	56.4	30.7	7.6	5.5
6	6,438	10,262	16,890	14.0	17.7	7.6	5.5	10.6
7	5,807	9,138	12,940	17.3	21.1	11.8	6.3	8.8
8	5,591	9,438	14,248	15.2	17.8	8.1	6.4	7.9
9	4,089	6,436	10,244	32.3	39.3	18.1	6.2	8.9
10	6,530	10,275	15,352	17.7	21.6	9.7	6.3	8.8
11	5,730	9,051	14,525	21.3	24.9	11.2	5.2	9.4
12	5,932	9,370	15,450	17.8	20.8	10.0	5.2	9.4
13	4,644	7,187	11,178	29.3	35.1	29.4	3.4	5.9
14	5,563	8,340	12,684	20.8	25.1	13.3	4.9	12.9
Desert	5,941	9,214	14,267	18.6	22.6	11.0	5.7	10.1
Coast	6,873	10,865	16,701	13.4	16.2	6.5	4.3	9.0
California	6,726	10,733	16,849	5.5	16.7	7.8	4.8	9.1
Clark County	7,010	10,869	17,277	3.1	14.4	6.3	3.1 [‡]	4.9 [‡]
Mohave County	5,111	9,223	13,801	3.6	22.8	2.4	3.6 [‡]	2.2 [‡]
Yuma County	5,360	8,206	13,390	2.6	24.7	11.6	2.8 [‡]	4.1 [‡]

* Estimate.

Percent receiving public assistance 1964 = number public assistance recipients 1964
1964 - population 1964.

Percent receiving public assistance 1972 = number public assistance recipients
1972 - population 1972.

± Military installation: because of population turnover, no estimate was made for 1977.

‡ For Clark, Mohave, and Yuma Counties, 1960 and 1970 population data were used instead
of 1964 and 1972.

Percent of Households with Incomes Under the Poverty Level

In 1970, a substantial percentage of the Desert's population earned less than \$5,000 a year (Table C-1). There were 22.6% of the families below this level, compared to 16.2% for the Coast and 16.7% for the State. The information from 1960 was not strictly comparable, because the poverty level for that year was \$3,000. However, purchasing power was supposedly the same, so that limited comparisons are possible. There was increased poverty in all of the comparative regions between 1960 and 1970, although different regions show different rates of change. For example, the Coast only changed by 2.8 percentage points, while the Desert changed by 4 percentage points. The State as a whole changed by 11.2 percentage points, while the two counties in Arizona changed by over 20 percentage points. Clark County showed a more moderate increase of 11 percentage points. In 1970, the Desert had slightly less of its population (22.6%) under the poverty level than Mohave (22.8%) and Yuma Counties (24.7%). Thus, its economic condition had improved relative to the other comparative regions.

The 1977 projections (based on the ONSITE program) show a general drop in the percentage of population below the poverty level. The Desert and Yuma County had the highest poverty levels (11%). This is an improvement, however, since both had almost a quarter of their population below the poverty level in 1970. The other regions show projected drops as well, with the State of California having the next highest percent below the poverty level (7.8%) and the Coast in third place (6.5%).

Market Area 2 had the smallest percentage of its population below the poverty level during each year. Market Areas 3, 6, and 8 also had a low percentage of families in this category, and relatively little poverty (by this definition). Market Area 10 shows a projected substantial drop in poverty during 1977.

Four market areas had relatively high percentages of families earning less than \$5,000 a year. Area 5 consistently had the highest percentage of families in this category, with median income below the poverty level for both sample years. Market Areas 4 and 9 also have substantial

poor populations. Although all of the market areas showed tremendous changes in this indicator, their relative positions do not alter substantially. The same areas were consistently poor or wealthy in comparison with each other.

Percentage Receiving Public Assistance

Public assistance payments are allocated by the county according to their interpretation of state requirements. Consequently, although it was assumed that welfare assistance is distributed evenly across the population, this may not be the case.

The percentage of the population receiving public assistance in 1972 was considerably lower than the percentage of the population with an income under \$5,000 (Table C-1). Market Area 2 was the only exception to this rule. In some other cases the difference was substantial. For example, in Area 5, 56.4% of the population was below the poverty level, but only 5.5% received public assistance. In Area 1, with 25.6% of the population below the poverty level, only 5.5% received assistance. Both of these areas showed a drop from 1964, when 7.6% received assistance. Market Area 14 had the highest percentage of population receiving assistance (12.9%), but over one-quarter of their population made less than \$5,000 in 1970. Consequently, there was a substantial gap between the percentage of population with poverty-level incomes and the percentage receiving public assistance. In Area 3, 11.3% of the population was below the poverty level (1970) and 9.6% received public assistance. In Area 6, 17.7% of the people were below the poverty level, and 10.6% received assistance. This is a much smaller discrepancy than is found for Areas 1 and 5.

Figures for the Coast and the State show that a higher percentage of poverty level families received assistance than was the case in the Desert. In the Desert as a whole, only 45% of those with poverty level incomes received assistance in 1970. On the Coast, this figure was 56% and California showed 55%. The other comparative regions showed a pattern closer to the Desert, but no direct comparison can be drawn because different states have different welfare regulations.

Per Capita State and Federal Revenue

Table C-2 shows the state and Federal revenue received by the counties in the study area for 1962, 1967, and 1972. The State of California is the only comparative region not shown, since much of the money it receives is funneled to local governments. If the State were included this money would be counted twice.

Table C-2

PER CAPITA STATE AND FEDERAL REVENUE

<u>Market Area</u>	Revenue (Dollars per Capita)		
	<u>1962</u>	<u>1967</u>	<u>1972</u>
Desert	\$ 94.00	\$148.20	\$249.00
Coast	95.20	131.80	254.70
Clark County, NV	91.90	118.70	229.40
Mohave County, AZ	120.60	129.40	190.80
Yuma County, AZ	87.60	147.90	243.60

The Desert and the Coast show equivalent amounts of intergovernmental aid over all three years. They fluctuated slightly from year to year, with the Desert receiving less in 1962, more in 1967 (by \$18 per capita) and slightly less in 1972. This may be indicative of equal distribution, but is probably also linked to the fact that the same counties are part of the Desert and the Coast. Consequently, these similar figures may be a function of the distribution formula. It can probably be concluded that the Desert did not receive more intergovernmental revenue than the Coast, but there is no way to tell if it received less. That is, the county services financed by this money may not be evenly distributed across Coast and Desert. It is impossible to ascertain this from secondary sources.

Clark, Mohave, and Yuma Counties all show intergovernmental revenue which is roughly equivalent. It is difficult to make direct comparisons because different states have different distribution formulae and require different services.

Per Capita Local Revenue

Table C-3 presents rough approximations of the revenue generated within the Desert as opposed to the revenue generated on the Coast. These estimates are based on the revenue from the population centers in the Desert, since this was the only data available where the Desert could be distinguished clearly from the Coast. Revenue generated in the unincorporated areas of the county was counted as part of the Coast. However, this was probably a minimal amount and would not affect the relative distribution even if it were correctly allocated. It is apparent that the Coast has over two times the revenue per capita as the Desert. These findings indicate the relative poverty of the Desert compared to the Coast.

Table C-3

LOCAL REVENUE FROM PROPERTY TAX

	<u>Total Revenue</u>	<u>Per Capita Revenue</u>
Desert	\$ 59,838,871	\$129.50
Coast	3,878,624,292	320.80

Appendix D

HOUSING

Appendix D

HOUSING

Introduction

This appendix discusses five indicators pertaining to the housing stock in the desert vis-a-vis the comparative regions. They are:

- Type of structure (single or multiple family)
- Status of structure (owned or rented)
- Median housing values
- Median rent
- Population stability (percent of families living in the same house for 5+ years).

Table D-1 shows the distribution of housing indicators for all of the market areas as well as the comparative regions. Aggregate figures for California, the Desert, Coast, and Clark, Mohave, and Yuma Counties are presented at the bottom of the table.

Type of Structure

All of the comparative regions show a reduction in the percentage of single family houses and an increase in the percentage of multiple family dwellings. The Desert shows an absolute change^{*} of 8.9 percentage points between single and multiple family dwellings. This is equivalent to the shift in Clark County, and greater than all of the other changes. However, the difference is very slight, since the Coast had an absolute change of 7.5 and California had a change of 6.6

The desert had a 9% rate of change[†] over the ten year period; less than 1% per year. The state as a whole also had a change rate of 9%

^{*} The absolute change is the difference in the data between any two years (i.e., 1970-1960).

[†] The rate of change is the percentage change between any two years (i.e., [1970-1960/1960]).

Table D-1

HOUSING

Market Area	Type of Structure			Status of Structure				Median Value (Dollars) 1960* 1970	Median Rent (Percent) 1960* 1970	Stability (Percent) 1960* 1970	
	Single Family (Percent) 1960* 1970	Multiple Family (Percent) 1960* 1970	Owner		Renter						
			Occupied (Percent) 1960* 1970	Occupied (Percent) 1960* 1970	Occupied (Percent) 1960* 1970	Occupied (Percent) 1960* 1970					
1	95.4%	4.6%	41.4%	48.9%	58.6%	51.1%	\$ 3,768	\$ 35	28.8%	37.7%	
2	59.4	40.6	16.9	20.0	83.1	80.0	NA	25	22	17.2	22.5
3	71.1	28.9	43.8	43.7	56.2	56.3	11,614	82	90	27.7	34.8
4	NA	NA	4.9	4.6	95.1	95.4	2,401	24	29	2.2	2.7
5	100.0	0	55.8	65.9	44.2	34.1	6,478	41	36	51.5	67.4
6	91.3	8.7	65.4	60.1	34.6	39.9	11,653	77	89	32.7	38.6
7	87.3	12.7	63.7	60.0	36.3	40.0	11,806	78	95	28.6	34.0
8	100.0	0	44.6	43.0	55.4	57.0	6,400	27	32	17.7	21.1
9	85.1	14.9	73.0	67.8	27.0	32.2	9,332	66	80	24.1	29.0
10	100.0	0	64.0	60.1	36.0	39.7	9,893	51	62	35.7	42.5
11	78.0	22.0	74.7	61.6	25.3	38.4	13,967	84	99	30.4	39.8
12	100.0	0	60.6	50.0	39.4	50.0	9,702	60	71	28.9	37.8
13	100.0	0	90.1	86.5	9.7	13.5	18,455	52	69	15.4	20.3
14	86.7	13.3	55.6	57.8	44.4	42.2	9,989	45	68	37.2	47.2
Desert Coast	93.0	7.0	61.9	58.6	38.1	41.4	9,246	69	85	31.1	38.1
	75.1	24.9	57.0	51.7	42.2	46.1	15,548	81	110	15.8	42.8
California	76.5	23.5	58.4	55.0	41.6	45.0	15,100	NA	110	17.3	41.5
Clark County, NV	76.6	23.4	55.9	58.0	44.1	42.0	15,300	07	133	26.7	34.7
Bolivar County, AZ	90.7	9.3	62.5	72.9	37.5	27.1	6,700	45	94	42.0	21.3
Yuma County, AZ	90.5	9.5	57.7	62.5	42.3	37.5	9,800	53	60	11.4	35.9

* Estimate.

[†] Stability is defined as the percentage of population living in the same house for five years.

even though it had a lower absolute change than the Desert (6.6 compared to 8.9). The Coast altered at a rate of 10% for the ten year period, slightly faster than the Desert. Clark County had the highest rate of change at 12% and Yuma and Mohave Counties only had a 5% rate of change. This indicates that even though the comparative regions are quite similar in the amount of absolute change, there are significant differences in the rate at which they are changing.

The percentage of multiple units found in the Desert was less than half of that found on the Coast or in California at large. Although there was an overall increase in the percentage of multiple family units within the Desert, there are wide variations from one market area to another. In 1970, Market Area 5 had no multiple units, and in Area 1 only 8.4% of the housing fell into this category. In Areas 8 and 9, less than 10% of the housing was multiple units. Areas 2, 3, and 4 showed substantial percentages of multiple dwellings (43%, 30.5%, and 37.3% respectively) compared to the other Desert regions. These three Areas are comparable to the Coast (32.4%). Market Area 11 has a relatively high percentage of multiple units for the desert (23%). The rest of the market areas have 15.5% or less multiple units in their housing stock.

Some of the market areas with a low percentage of multiple units showed substantial change within the ten years. For example, Area 13 went from no multiple family units in 1960, to 15.5% multiple units in 1970. The same pattern was true for Market Areas 10 and 12. Market Area 10 had no multiple family units in 1960 and 11.9% in 1970, while Area 12 went from 0 to 12%. These were the most dramatic increases; the rest of the market areas showed shifts of less than 10 percentage points.

Owner/Renter Distribution

The Desert, the Coast, and the State of California all showed a drop in the percentage of owner occupied dwellings and an increase in the percentage of rental units (Table D-1). This change, however, was quite gradual, occurring at a rate of 5% over the ten-year period within the Desert. The Coast shows a 7% rate of change, and the State a rate of 6%

for the same time period. It seems that the Desert is slightly less affected by the trend toward rental housing than the other two regions. The percentage of rental units in the Desert was much higher than the percentage of multiple dwellings, indicating that there were already a substantial number of rented houses in the Desert. On the Coast, multiple units formed a much higher percentage of the rental market. The State as a whole was similar to the Coast with regards to this indicator. Clark, Mohave, and Yuma Counties all showed the opposite trend: an increasing percentage of their housing stock was owner occupied.

The distribution of owners to renters varied within the Desert. Although the Desert had more owner occupied housing, there were certain areas where rental units were in the majority. Most of the changes during the ten-year period were fairly minor. The overall balance of owners to renters did not change radically.

In Market Areas 1, 2, 3, 4, 8, and 12 more than 50% of the housing stock were rentals. Owner occupied housing predominated in all of the other market areas, although a substantial (over 30%) number of rental units can be found. Market Area 13 is the major exception to this rule: only 13.5% of its housing was rental. In Market Area 5, there was a shift away from rental housing; owner occupied housing increased by 10 percentage points. However, 34.1% of the housing stock in Area 5 was rental. Market Area 11 showed an opposite trend, with a 13.1 percentage point increase in rental property. The remaining market areas did not show any substantial changes in the proportion of owner occupied to rental property.

Median Value/Rent

Both the median value of housing and the median rent increased in all areas (Table D-1). Between 1960 and 1970 the rate of change for the Desert was 84%. The Coast only experienced a 56% increase during the same period of time, with California showing an increase of 53%. That is, housing values increased more rapidly in the Desert than on the Coast or in the State. In Mohave County the median value of housing increased by 114%, but still remains fairly low. Yuma County was the least affected

by this trend, with only a 40% increase in median housing values. Median rent followed a pattern similar to median housing values, although the changes were less marked. The median rent in the Desert only increased by 23% during the 1960s, while the median rent on the Coast increased by 36%. In Mohave County, the median rent jumped 109%.

The median value of housing in all of the market areas increased during the sixties. The most substantial increases were found in Market Areas 1 (80%), 4 (80%), 6 (53%), 11 (49%), and 12 (49%). Even with these sizable increases, the cost of housing in the Desert remained below the median for the State and the Coast. Market Area 13 was the only one which showed a median value above that of the Coast.

Median rents have been much more stable than housing values. An examination of Table D-1 shows that there was an overall increase in median rent, although Market Areas 1, 2, and 5 showed a slight drop. The rest of the areas showed a gradual increase, but all median rents remained below the Coast figure.

Population Stability

Percentages of population stability represent that portion of the population which has lived in the same house for more than five years. All of the comparative areas except Mohave County showed an increase in population stability. The stability of Mohave County's population decreased by 18 percentage points (a rate of 43%), indicating that large numbers of people moved to this area, or moved within the area. The Desert population had stabilized at a rate of 23% for the ten-year period (absolute change was 7 percentage points). The population of the Coast showed an identical change pattern during this period, but was slightly more stable than the Desert population. Table D-1 shows that in 1970, 38.3% of the Desert's population had lived in the same house for more than five years, while 42.8% of the Coast population had done so. The comparable figure for California was 43.5%.

Within the Desert, Market Areas 5, 11, and 14 showed the largest percentage increase in population stability. It would seem that population in these areas is less transient than during the 1950's. However, only Market Areas 5 (67.4%) and 14 (47.2%) were more stable than the Coast (42.8%).

Appendix E

EDUCATION

Appendix E

EDUCATION

Introduction

Three selected indicators for education were compared:

- Percentage of school-age children in the general population.
- Expenditures per school-age child.
- Median years of education for each sample unit.

Data is presented for all comparative regions on the percentage of school-age children and the median years of education. These indicators were available for 1960 and 1970, since they are based on census data.

Expenditure data was collected for 1962, 1967, 1972, and 1976. This data includes federal, state, and local monies spent on educating children in grades K-12. Data on expenditures is not presented for California as a whole to avoid counting the same dollars twice since state money is funneled through local education agencies (LEAs).

Data is not presented for educational systems outside of California since other states have different educational requirements.

The following limitations and assumptions apply to this data.

- It was assumed that the ratio of the number of students enrolled in school to the number of eligible children was the same in 1960 as it was in 1970 for the 14 market areas. The same assumption was necessary regarding the median years of education.
- Expenditure data was collected for 1962, 1967, 1972, and 1976, whereas the number of school-age children was only available for 1960 and 1970.

Percentage of School-Age Children

As shown in Table E-1, the Desert has a slightly higher percentage of school-age children than the Coast or the State. Market Areas 1 and 4

had a particularly significant increase in school age schildren from 1960 to 1970. Areas 2, 4, and 9 have the smallest percentages of school-age children, over 9 percentage points lower than the Desert median.

Table E-1

PERCENTAGE OF SCHOOL-AGE
CHILDREN (AGES 6-17)

Market Areas	Percentage of Population	
	1960*	1970
1	18.2%	22.7%
2	10.2	9.5
3	26.0	26.6
4	13.8	15.0
5	18.6	17.4
6	26.0	27.5
7	24.2	26.4
8	20.8	22.3
9	14.4	15.7
10	22.3	24.3
11	21.0	22.1
12	26.3	27.7
13	21.1	22.2
14	23.7	29.6
Desert	23.6	25.5
Coast	20.7	23.0
California	21.5	23.2
Clark County, NV	22.1	24.2
Mohave County, AZ	24.7	23.8
Yuma County, AZ	24.0	25.7

* Estimate.

Note: We assumed that the ratio of students enolled in school to number of eligible children was the same in 1970 as 1970.

Market Areas 2 and 5 showed a reduction in the percentage of school-age children, as did Mohave County. However, the drop was so slight that it cannot be construed as a trend. The remainder of the market areas, and the comparative regions, showed a one or two percentage point increase. It is likely that the Desert will continue to show a slightly higher percentage of children than the Coast. In addition, the children will probably be distributed much as they are now.

Education Expenditures per School-Age Child (Age 6-17)

Overall the Desert spends less per pupil than the Coast but the percentage difference between the two seems to be decreasing slightly with time (Table E-2).

Market Areas 1, 2, 5, and 9 have consistently spent 50% more per school-age child than the Desert median during the four years for which data were collected. Area 13 was also over 50% higher in both 1972 and 1976. All of these market areas were well under 6,000 population, except Area 9. Area 9, however, had a very low percentage of school-age children, so that the number of students receiving services would actually be quite small. There was no consistent pattern in the actual dollar amount increases or the percentage change during the three 5-year periods. There were no negative expenditure patterns, but the increases ranged from as small as 4% to as much as 83% during one 5-year period.

The same four market areas that spent more than the Desert median (1, 2, 5, and 9) during each year studied were also the ones that showed the largest increase in expenditures over the last 15 years. They each spent double the median increase. Three other market areas (1, 8, and 11) increased their expenditures per school-age child by over \$1,000. Market Area 6 consistently spent less than any of the other market areas.

Median Years of Education

The Desert had a lower median for the number of years of education during both 1960 and 1970 than either the Coast or the State of California as a whole (Table E-3). However, the Desert made a larger jump in the last 10 years than either the Coast or the State as a whole.

Market Areas 5 and 14 had the lowest median years of education of all the study areas; neither showed a significant increase between 1960 and 1970. Clark County had a particularly high level of education in 1960 and in 1970 was slightly above the average for the Desert, Coast, and State of California. Market Areas 3 and 7 had the most substantial increases in the median years of education, although Market Area 6 also increased its median significantly.

Table E-2

EDUCATION EXPENDITURES
PER POPULATION AGE 6-17

Market Areas	Annual Expenditure Per Pupil			
	1962*	1967†	1972†	1976†
1	\$ 946.39	\$ 879.27	\$1,425.56	\$1,854.76
2	1,699.92	2,142.25	3,473.25	4,517.56
3	506.02	571.77	630.22	1,154.75
4	807.14	1,404.72	2,051.57	2,499.97
5	943.00	1,174.89	1,904.85	2,478.34
6	347.70	380.80	594.20	716.20
7	631.90	775.45	1,132.52	1,380.05
8	542.58	886.06	1,296.16	1,581.19
9	962.81	1,068.45	1,561.11	1,905.05
10	435.33	804.56	1,175.04	1,431.87
11	693.56	839.17	1,258.65	1,723.90
12	407.67	656.50	995.26	1,363.05
13	747.99	889.92	1,545.49	2,241.68
14	581.37	686.62	1,129.44	1,514.56
Desert	535.96	627.39	1,015.70	1,281.04
Coast	673.40	737.03	1,177.03	1,471.64

* Estimate--based on 1960 population figures.

† Estimate--based on 1970 population figures.

Table E-3

MEDIAN EDUCATION

<u>Market Areas</u>	<u>Education</u>	
	<u>1960*</u>	<u>1970</u>
1	11.9	12.1
2	12.2	12.4
3	11.7	12.5
4	12.1	12.5
5	8.7	8.8
6	11.8	12.3
7	11.9	12.3
8	11.4	11.8
9	11.8	12.2
10	11.7	12.1
11	11.9	12.3
12	11.3	11.7
13	12.0	12.3
14	10.1	10.8
Desert	11.5	12.2
Coast	12.1	12.4
California	12.1	12.4
Clark County, NV	12.1	12.4
Mohave County, AZ	11.0	12.2
Yuma County, AZ	10.4	12.0

* Estimate.

Appendix F

POLITICAL AND PUBLIC INFORMATION

Appendix F

POLITICAL AND PUBLIC INFORMATION

Introduction

Data were gathered on two indicators of political participation.

- Percentage of eligible population registered to vote
- Percentage of registered voters that voted.

Data on voter registration and turn-out are presented for all market areas and the six comparative regions, for 1964, 1968, 1972, and 1976.

Two assumptions were made to facilitate analysis.

- The percentage of the population over 21 was the same in 1964 and 1968 as it was in 1970.
- The percentage of the population over 18 was the same in 1972 and 1976 as it was in 1970.

Voter Registration

All of the comparative regions showed a decline in voter registration from 1962 to 1976 as shown in Table F-1. The largest drop in voter registration occurred between 1964 and 1968. From 1968 to 1972 the Desert, the Coast, and the State of California showed increased voter registration to levels above 1964 figures while the Counties of Clark, Mohave, and Yuma continued to show decreasing registration. From 1972 to 1976 the Coast, the State of California, and Clark County experienced slight declines in voter registration. The Desert region remained constant and Mohave and Yuma Counties made slight gains in voter registration but still remained below the 1964 levels.

An analysis of the voter registration figures for the various market areas reveals that Market Area 14 had the lowest percentage of registered voters for the entire period although in 1976 it had a higher percentage than the comparative regions of Clark and Yuma Counties. Market Areas

Table F-1

POLITICAL PARTICIPATION

Market Areas	Percentage of Eligible Population Registered to Vote *				Voter Turn-Out (Percentage of Registered Voters that Voted in Federal Elections) *			
	1964	1968	1972	1976	1964	1968	1972	1976
1	83.6%	85.3%	80.9%	77.0%	87.6%	84.6%	82.8%	80.3%
2	83.6	85.3	80.9	77.0	87.6	84.6	82.6	80.3
3	71.4	68.2	69.3	67.7	87.7	86.8	82.3	82.6
4	73.6	67.5	67.6	67.7	88.5	84.2	81.7	83.1
5	83.6	85.3	80.9	77.0	87.6	84.6	82.8	80.3
6	74.7	70.1	74.5	70.2	88.4	85.6	81.0	81.5
7	73.6	67.6	67.6	67.7	88.5	84.2	81.7	83.1
8	74.7	69.5	69.1	68.7	88.4	84.2	81.8	82.8
9	73.5	67.7	68.1	68.3	88.4	84.2	81.8	83.0
10	73.6	67.5	67.6	67.7	88.5	84.2	81.7	83.1
11	73.1	69.1	72.6	73.8	87.8	84.5	82.6	82.0
12	73.1	69.1	72.6	73.8	87.8	84.5	82.6	82.0
13	71.6	71.4	73.7	81.3	88.1	85.6	81.7	82.0
14	64.1	59.9	63.0	62.2	84.5	81.9	82.8	79.3
Desert	71.8	67.3	69.1	69.1	87.5	84.4	81.0	81.8
Coast	75.5	71.5	75.9	74.5	88.7	82.1	81.8	81.7
California	75.0	73.1	77.0	69.6	88.3	84.4	82.1	81.5
Clark County, NV	87.5	69.3	57.5	52.3	82.0	81.0	78.1	82.0
Mohave County, AZ	94.8	76.5	66.0	72.6	81.9	83.2	70.0	81.4
Yuma County, AZ	64.1	53.5	52.4	52.7	82.4	81.8	72.3	76.3

* Estimate.

1, 2, and 5 had the same percentage of registered voters for all years. These market areas had the highest percentage of registered voters (77.6%) until 1976 when Market Area 13 had 81.3% of its eligible voters registered.

On the average it can be said that voter registration in the Desert was similar to the other regions. Even though it ranked third in total percentage of voters registered in 1976 at 69.1% (behind the State at 69.6% and the Coast at 74.5%) the Desert experienced only a 4% decline in voter registration from 1964 to 1976. The only area with a smaller decrease for the same time period was the Coast with a 1% decrease in voter registration. The percentage decreases for the other areas from 1964 to 1976 are as follows: California, 7%, Clark County, 40%; Mohave County, 23%; and Yuma County, 18%.

Voter Turn-Out

As with voter registration, voter turn-out steadily declined from 1964 to 1976 for the Desert, the Coast, and the State of California (the Desert did make a small gain from 1972 to 1976). However, the voter turn-out for all areas except Yuma County remained above 80% for the 1976 elections, as shown in Table F-1. Clark and Yuma Counties showed decreased voter turn-out from 1964 to 1972 and then an increase from 1972 to 1976. Mohave County fluctuated back and forth with an increase in 1968, a decrease in 1972, and another increase in 1976. The net result of these various increases and decreases is that in 1976 all of the study areas with the exception of Yuma County (76.3%) had voter turn-outs ranging from 81.4% to 82%. There does not seem to be any marked difference between the Desert and comparative regions for this indicator.

An analysis of the individual market areas shows that Market Area 14 (which had the lowest voter registration) also had the lowest voter turn-out except for 1972. However, the areas with the highest voter registration did not have the highest percentage of voter turn-out. Quite to the contrary, Areas 4, 7, and 10 had the highest voter turn-out for 1964 and 1976. Area 3 had the highest voter turn-out for 1968. A typical year was 1972--the Areas with the highest registration (1, 2, and 5) and the Area with the lowest registration (14) turned out the highest percentage of voters.

Appendix G
EXPENDITURES

Appendix G

EXPENDITURES

Introduction

Information on public expenditures was collected for the following local services.

- Libraries
- Public Health
- Law Enforcement
- Fire.

Per capita expenditures are presented for the Desert, the Coast, and the three counties external to California. The State has no comparable expenditures. A breakdown by market area was not feasible, for the following reasons. Expenditure data is only available on a county by county basis, and is not necessarily linked to the population distribution within each county. It could not be assumed that one-quarter (for example) of the county law enforcement funds were spent in an area with one-quarter of the county's population. Since the allocation formula is linked to population, expenditure data allocated by this formula would be misleading. However, a comparison of the Desert and the Coast with the other counties was developed to provide general expenditure patterns. This breakdown had a higher confidence level, since it was less linked to population distribution within the Desert.

Library Expenditures

Information on library expenditures was collected as a measure of public information. Table G-1 shows that there was a gradual increase in per capita expenditures for libraries in four of the five comparative regions from 1962 to 1972. These four regions are the Desert, the Coast, Clark County, and Mohave County. In Yuma County library expenditures increased from 1962 to 1967 but then dropped below the 1962 level in 1972.

Table C-1

PUBLIC EXPENDITURES

Region	Library (Dollars per Capita)		Public Health (Dollars per Capita)		Law Enforcement (Dollars per Capita)		Fire (Dollars per Capita)	
	1962	1967	1962	1967	1962	1967	1962	1967
Desert	\$2.08	\$2.92	\$4.45	\$ 9.09	\$13.96	\$11.45	\$13.57	\$25.90
Coast	2.81	3.76	5.75	4.70	8.75	15.85	21.05	38.20
Clark County, NV	0.79	1.71	3.83	2.94	7.04	21.78	28.55	27.26
Mohave County, AZ	0.17	0.57	3.94	2.06	3.02	16.50	16.07	23.83
Yuma County, AZ	2.14	5.33	1.80	10.84	4.41	11.12	12.28	21.90
							\$ 5.62	\$ 9.09
							9.26	11.12
							11.89	16.98
							3.22	2.82
							5.34	5.15
								7.81

Note: Health expenditure data for 1962 was not included because figures for that year included expenditures for hospitals; 1967 and 1972 excluded hospital expenditures.

The Desert region ranked third in expenditures behind the Coast and Yuma County in 1962 and 1967. But with the drastic cutback in Yuma County in 1972 the Desert moved up to second place behind the Coast. The percentage increases of the Desert and the Coast were very close with the Desert making a slight gain over the Coast.* From 1962 to 1967 library expenditures increased in the Desert by 40% and in the Coast by only 34%. From 1967 to 1972 the Desert increased by only 52% to the Coast's 53%. This produced an overall increase from 1962 to 1972 of 114% for the Desert and 105% for the Coast. The percentage difference between the two regions remained quite stable during this time period. In 1962 the Coast was spending 35% more per capita for libraries than the Desert. This difference dropped to 29% for both 1967 and 1972.

Public Health Expenditures

One indicator related to health care was health expenditure per capita. (See Chapter III for discussion of other health care indicators.)

Table G-1 shows that in 1967 the Desert ranked second in expenditures for health with \$9.09 per capita. Yuma County had the highest expenditures at \$10.84. The figure for the Desert is almost double that of the Coast (\$4.70 per capita) and more than triple that of Clark and Mohave Counties (\$2.94 and \$2.06 respectively).

The only area to reduce health expenditures in 1972 was Yuma County. Expenditures were reduced by 59% to \$4.41 per capita. This left the Desert region a high figure of \$13.96 per capita followed by the Coast at \$8.75, Clark County at \$7.04 and Mohave County at \$3.02.

Law Enforcement Expenditures

Law enforcement expenditures are another way to measure the comparative public safety of the Desert region. Table G-1 shows that during

* This data may show a higher expenditure in the Desert than actually exists, since expenditures were linked to population, not the actual location of libraries.

the period from 1962 to 1972 law enforcement expenditures per capita doubled for both the Desert and the Coast (\$11.45 to \$25.90 for the Desert and \$15.85 to \$38.20 for the Coast) a gain of 126% and 141% respectively.* Expenditures for Clark, Mohave, and Yuma Counties also increased during this time period, but not as much as the Desert or the Coast. Of the three counties, Yuma County had the largest increase from \$11.12 to \$12.90 per capita (97%). Clark and Mohave Counties made smaller gains with increases of only 25% and 44% respectively.

In 1972, the Coast had the highest expenditure for law enforcement per capita, Clark County was second, followed by the Desert, Mohave County and Yuma County. In 1962 and 1967 the Desert region was fourth in law enforcement expenditures with only Yuma County spending less per capita. However, in 1972 the expenditures in the Desert increased by 91% to \$25.90 per capita, only \$1.36 per capita behind Clark County. It should also be noted that Clark County's expenditures declined from \$28.55 per capita in 1967 to \$27.26 per capita in 1972.

Fire Expenditures

The remaining indicator of public safety is fire expenditure per capita. From 1962 to 1972 fire expenditures in the five comparative regions fluctuated (Table G-1). The Desert and the Coast were the only two regions that showed a steady increase in expenditures. Both Mohave and Yuma Counties showed drops in expenditures from 1962 to 1967 and increases from 1967 to 1972. The expenditures for Clark County increased from 1962 to 1967 and were then drastically decreased by 63% from 1967 to 1972. The net result of this fluctuation was that the Desert--which ranked third in expenditures (\$5.62) in 1962 behind the Coast and Clark County--in 1972 ranked second at \$13.96 behind the Coast at \$17.67. Clark County dropped from first in 1962 to fifth in 1972.

* This may be an inflated figure for the Desert, since there is no way to geographically allocate county expenditures.

REFERENCES

- American Hospital Association Guide to the Health Care Field 1977 Edition, American Hospital Association, Chicago, Illinois.
- Ayer's Directory of Publications, Ayer Press, Philadelphia, Pennsylvania, 1962, 1967, 1973, 1976.
- Bureau of Census, Census of Governments Volume IV Government Finances, Number 5 Compendium of Government Finances 1962, 1967, 1972, U.S. Department of Commerce.
- Bureau of Census, Census of the Population 1960, Characteristics of Population, Arizona, California, and Nevada, U.S. Department of Commerce.
- Bureau of Census, Census of the Population 1970, General Social and Economic Characteristics, Arizona, California, and Nevada, U.S. Department of Commerce.
- Bureau of Census, County and City Data Book 1967, 1972, U.S. Department of Commerce.
- Bureau of Census, General Housing Characteristics 1960, Arizona, California, and Nevada, U.S. Department of Commerce.
- Bureau of Census, Statistical Abstract of the United States 1977, U.S. Department of Commerce.
- Bureau of Census, United States Census of Population 1960, Detailed Characteristics, Arizona, California, and Nevada, U.S. Department of Commerce.
- Bureau of Criminal Statistics, Criminal Justice Profile 1976, Imperial Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernadino, San Diego, Ventura, State Department of Justice.
- Center for Health Statistics, "Deaths by Age Group, California Counties, 1960, 1964, 1968," State Department of Health.
- Center for Health Statistics, "Infant Deaths by Month of Death, California Counties, 1972, 1976," State Department of Health.
- Distribution of Dentists 1961, 1968, 1972, 1976, American Dental Association, Chicago, Illinois.

Distribution of Physicians, Hospitals, and Hospital Beds in the U.S. 1967, 1972, American Medical Association, Chicago, Illinois.

Distribution of Physicians in the U.S. 1963, American Medical Association, Chicago, Illinois.

Elections Department, "Registration, Voting Precincts and Total Vote Cast at the General Election, November 9, 1969," Secretary of State's Office.

Elections Department, "Statement of Vote 1972, 1976," Secretary of State's Office.

Elections Department, "Supplement to Statement of Vote, 1964," Secretary of State's Office.

Elections Department, "Voter Registration 1968, 1972, 1976," Secretary of State's Office.

Federal Bureau of Investigation, Uniform Crime Reports 1967, 1972, 1974, Department of Justice.

Physicians' Distribution and Medical Licensure in the U.S. 1976, American Medical Association, Chicago, Illinois.

State Controller, Annual Report of Financial Transactions Concerning Cities of California FY 1975-1976.

State Controller, Annual Report of Financial Transactions Concerning Counties of California FY 1966-1967, FY 1971-1972, FY 1975-1976.

Urban Decisions System, ONSITE Computer Program.

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